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ABSTRACT

Fifty-four charts and statistical profiles depict changes affecting American colleges and college students, based on information drawn from government publications and other technical reports. Charts and graphs are accompanied by some narrative. They cover: changes in the higher education and consumer price indexes; family income and savings; trends in the college-age and high school graduate population; increases in the number of college-educated adults; employment patterns among the college-educated; relationships between family income and college attendance; population trends, including minority groups; the status of women and minorities in degree attainment and academic employment; enrollment trends; faculty trends; college costs; institutional finance; acceptance of credit for non-collegiate learning; trends and patterns in student characteristics; trends in choice of major; college preparation and application; college choice; and student financial aid and indebtedness. (MSE)

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HIGHER EDUCATION TODAY: Facts In Brief

Cecilia A. Ottinger,
Editor

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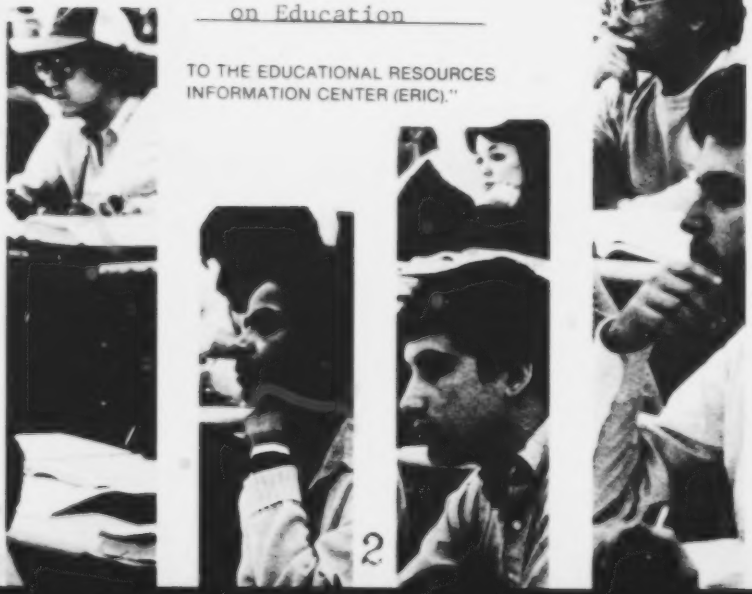

AMERICAN COUNCIL ON EDUCATION

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May 1989

HIGHER EDUCATION TODAY: Facts In Brief

Cecilia A. Ottinger, Editor

May 1989

American Council on Education
Division of Policy Analysis and Research

Foreword

Higher Education Today: Facts in Brief is a concise collection of fifty-four charts and statistical profiles that depict the dynamic and changing nature of American colleges and universities. Trends affecting both students and colleges are highlighted, based on information available from a variety of government publications and other technical reports.

Most of the charts in this publication have been reprinted from the "Facts in Brief" feature that appears in *Higher Education and National Affairs*, the biweekly newsletter of the American Council on Education. Statistics have been updated whenever appropriate; regrettably, the best available information sometimes is not very recent.

Cecilia Ottinger, research associate, prepared these materials and this special publication. Thanks go to Jennifer Hess for her assistance in preparing this publication. We hope that this publication, and the continuing "Facts in Brief" feature in *Higher Education and National Affairs*, offer a convenient and informative resource for understanding key trends affecting higher education.

Elaine El-Khawas
Vice President for
Policy Analysis and Research

May 1989

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DEMOGRAPHIC AND ECONOMIC TRENDS

Changes in the Higher Education Price Index and the Consumer Price Index, 1980–1988

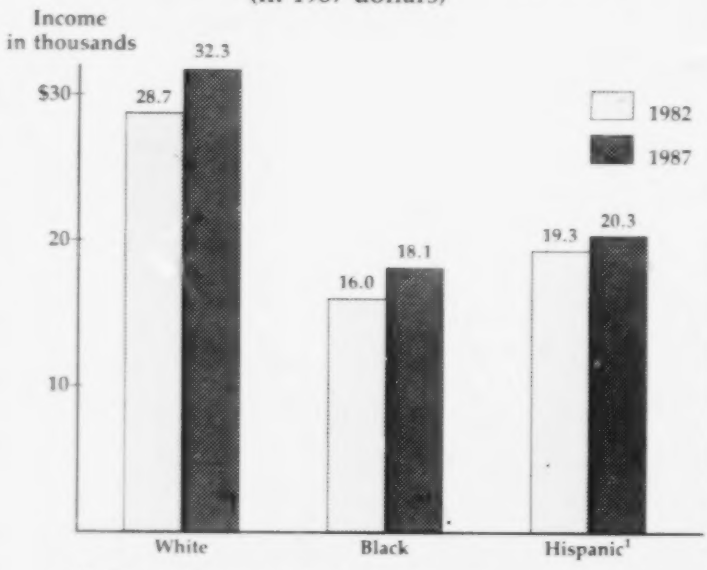
- The Consumer Price Index (CPI) measures the percent change in the rate of inflation. The CPI was 4.1 percent in 1988 and is projected to increase to 4.7 percent in 1989.
- The Congressional Budget Office (CBO) predicts the CPI will increase to 4.9 percent in 1990 and decline to 4.6 percent in 1991. In 1992, inflation is expected to decline to 4.4 percent and remain at that level through 1994.
- The Higher Education Price Index (HEPI) is a measure of average changes in the costs of goods and services that colleges purchase. Since 1982, the HEPI has outpaced inflation.
- The HEPI decreased from 10 percent in 1982 to 5.4 percent in 1984, climbed to 6.7 percent in 1985, and fell to 4.4 percent in 1988.
- According to the HEPI, colleges in 1988 paid 28 percent more for goods than they did in 1983.

Sources: "Higher Education Prices and Price Indexes: 1988 Update," Research Associates of Washington, 1988. For more information, contact Research Associates of Washington, 2605 Klingle Rd. NW, Washington, D.C. 20008, (202) 966-3326. "The Economic and Budget Outlook: Fiscal Years 1990–1994," Congressional Budget Office, 1989.

Family Income Up Slightly

- In 1987, median family income stood at $30,853, a 1 percent increase over 1986 after adjusting for inflation.
- From 1982 to 1987, median family income increased 12 percent after adjusting for inflation.
- In 1987, the median income of families headed by college-educated adults was $46,533, compared to $29,937 for families headed by those with only a high school education.
- Female-headed families with no husband present had the lowest median income in 1987: $14,620.
- In 1987, median family income varied considerably by race and ethnicity. White families had a median income of $32,274, compared to $20,306 for Hispanic families and $18,098 for black families.
- Between 1986 and 1987, black families experienced a 1 percent decline in median income, while Hispanic families' income decreased by 2 percent.

Median Family Income By Race and Ethnicity (in 1987 dollars)



[1]Persons of Hispanic origin may be of any race.

Source: U.S. Bureau of the Census, Series P-60, No. 161, "Money Income and Poverty Status of Families and Persons in the United States: 1987 (Advance Data from the March 1988 Current Population Survey)," U.S. Government Printing Office, Washington, DC, 1988.

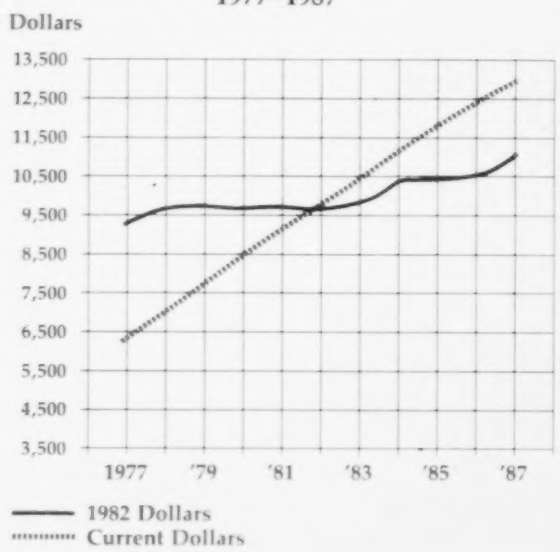
Families Save 4 Percent of Income

Data on the disposable income and savings rates of individuals published by the U.S. Department of Commerce provide a useful perspective on the financial circumstances of Americans and their ability to finance college costs. Disposable income—the amount of money individuals have available after paying taxes—indicates how much money consumers actually have to spend or save.

- In 1987, per capita disposable income was $13,049, up 4 percent over the 1986 amount of $12,508. However, when adjusted for inflation, per capita disposable income increased by only 1 percent during that period.
- Savings as a percentage of disposable income is generally very modest; today individuals save less of their income than they did five and ten years ago. In 1987, savings represented 4 percent of disposable income. In 1980, 7 percent of a person's income went to savings.
- In 1987, savings amounted to about $496 per person.

Source: Department of Commerce, Bureau of Economic Analysis, February 1988.

Per Capita Disposable Income 1977–1987



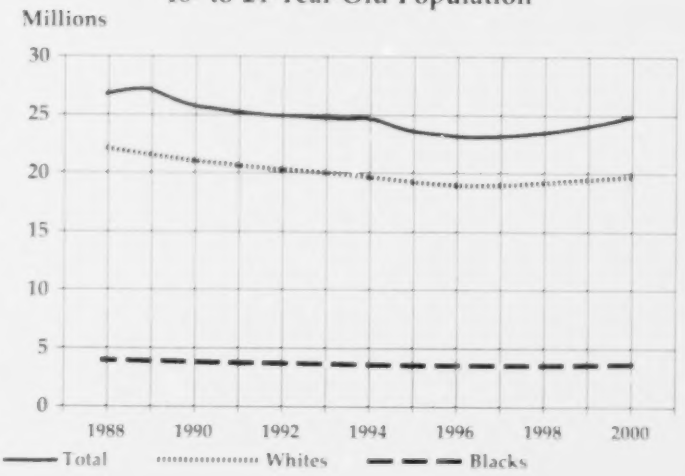
College-Age Population is Declining

Over the next decade the traditional college-age population is expected to decline.

- Between 1988 and 2000, the number of 18-to-24-year-olds will decrease by 6 percent. The number of college-age whites is expected to decrease (10 percent); blacks also are expected to decrease during this period (3 percent).
- Between 1988 and 2000, the white college-age population is expected to decline by 2.1 million, while the black college-age population is projected to decrease by 100,000.
- In the next year, the 18-to-24-year-old population is expected to decline by 1 percent from 26.9 million to 26.5 million.
- Between 1988 and 1990, the number of 18-to-24-year-olds will decline by 4 percent.

Source: U.S. Bureau of the Census, "Projections of the Population of the U.S. by Age, Sex and Race 1983 to 2080." Series P-25, No. 952.

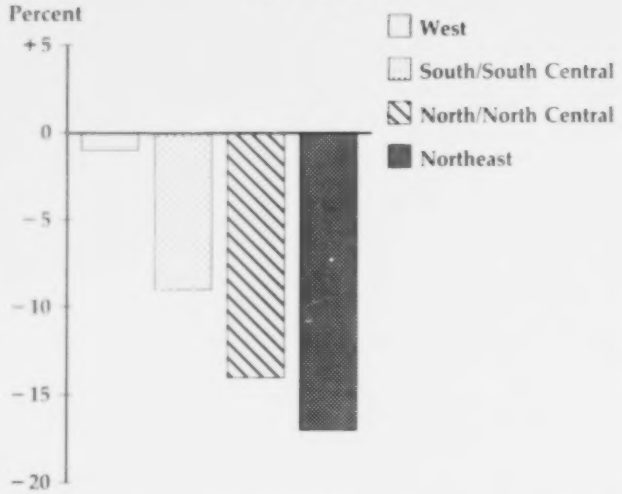
Projections of the 18- to 24-Year-Old Population



Number of High School Graduates Expected to Decline 11 Percent

- Between 1989 and 1994, the number of students graduating from high school is expected to decline 11 percent, from 2.7 million to 2.4 million.
- The largest year-to-year declines will occur in 1990 and 1991, when the number of high school graduates is expected to drop by 5 percent.
- Projections for high school graduates from 1989 to 1994 vary by state:
  - In California, the number of high school graduates is expected to increase by 2 percent.
  - The number of graduates is expected to drop by 15 percent in New York, by 6 percent in Florida, and by 16 percent in Illinois.
- Over the next five years, the largest drop in the number of high school graduates (17 percent) is expected in the Northeast.

Percentage Change in High School Graduates 1989 to 1994

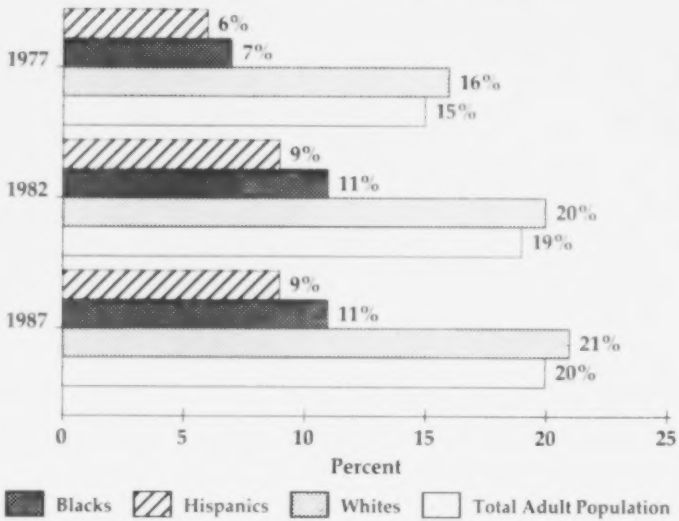


Source: "High School Graduates: Projections by State, 1986 to 2004," a joint publication of the Western Interstate Commission for Higher Education (WICHE), The College Board, and the Teachers Insurance and Annuity Association. (Available from WICHE, P.O. Drawer P, Boulder, CO 80301-9752; $7 prepaid).

More Adults are College Educated

- More adults are college educated today than a decade ago, according to U.S. Census figures. In 1987, 20 percent of U.S. adults 25 years old and older had at least baccalaureate degrees, compared to 15 percent in 1977.
- Males are still more likely to be college educated than females. In 1987, almost one-quarter (24 percent) of adult males had a college education, compared to 16 percent of females. Ten years earlier, 19 percent of males had a baccalaureate degree or higher, compared to 12 percent of females.
- Minorities are far less likely to be college educated. In 1987, 21 percent of whites 25 years old and older had at least four years of college, compared to 11 percent of blacks and 9 percent of Hispanics.
- In 1987, 37 percent of the adult population had one year or more of college, compared to 29 percent in 1977 and 33 percent in 1982.
- Thirty-eight percent of whites, 26 percent of blacks, and 22 percent of Hispanics had one year or more of college in 1987.

Adults With Four Years of College



- The percentage of adults with a high school diploma increased during the decade. Slightly more than three out of four adults (76 percent) had a high school diploma in 1987, compared to 65 percent in 1977.
- The percentage of blacks with a high school diploma increased significantly between 1977 and 1987, from 46 percent to 63 percent. Hispanics also made gains during this period, from 40 percent to 51 percent.

Sources: U.S. Bureau of the Census, *Educational Attainment in the United States:* March 1977, 1982 to 1985, and 1986 to 1987, Current Population Reports, Series P-20, Nos. 314, 415, and 428.

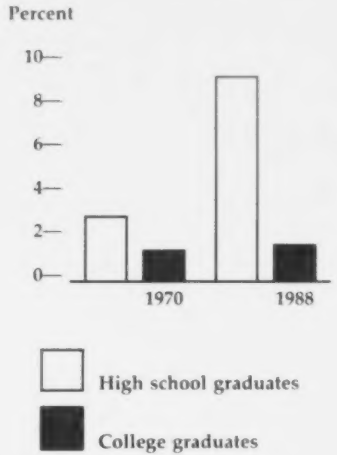
College Graduates Do Better in Job Market

Overall, college graduates appear to have a competitive advantage in the labor market. Data from the Bureau of Labor Statistics on adults between 25 and 64 years old offer the following comparisons for 1988:

- Eighty-eight percent of college graduates are currently in the labor market, compared to 77 percent of high school graduates. In 1976, the labor force participation rate was 85 percent for college graduates and 71 percent for high school graduates.
- High school graduates are more likely to be unemployed than college graduates. Currently, the unemployment rate is 5.4 percent for high school graduates and 1.7 percent for college graduates.
- Between 1970 and 1988, the unemployment rate for college graduates increased slightly from 1.3 percent to 1.7 percent. High school graduates experienced a significantly greater increase in unemployment rates during this period, from 2.9 percent to 9.4 percent.
- In 1988, 66 percent of college graduates in the labor market held positions in managerial and professional fields. In comparison, only 11 percent of high school graduates were employed in such occupations.

Source: Bureau of Labor Statistics, 1988 unpublished data.

Unemployment Rates by Level of Education, 1970 and 1988



GED Testing Increased Again in 1987

For the third consecutive year, the number of individuals who took the General Educational Development (GED) Tests has increased.

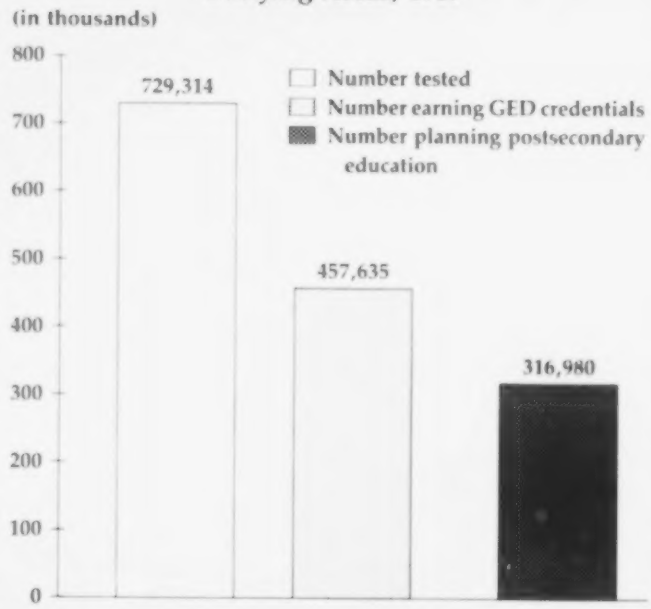
- In 1987, 758,367 people took the tests at more than 3,300 locations throughout the world. The number of GED examinees increased by 3 percent from 1986.
- In the United States, about 460,000 of the 1987 examinees who completed the battery of tests earned a high school equivalency credential on the basis of their test results.
- More than 315,000 of those who took the tests last year in the United States plan to continue their education.
- The six states with the most examinees tested include:

New York	75,893	Florida	45,515
Texas	61,041	Pennsylvania	28,682
California	53,418	Michigan	28,335

- Since 1971, more than 6.5 million adults have obtained a high school equivalency credential through the GED testing program.

Source: "1987 GED Statistical Report," American Council on Education. Copies of the report are available for $5 prepaid from the GED Testing Service, One Dupont Circle, Suite 20, Washington, DC 20036-1193.

GED Testing in the United States and Outlying Areas, 1987



Strong Relationship Exists Between Family Income and College Attendance

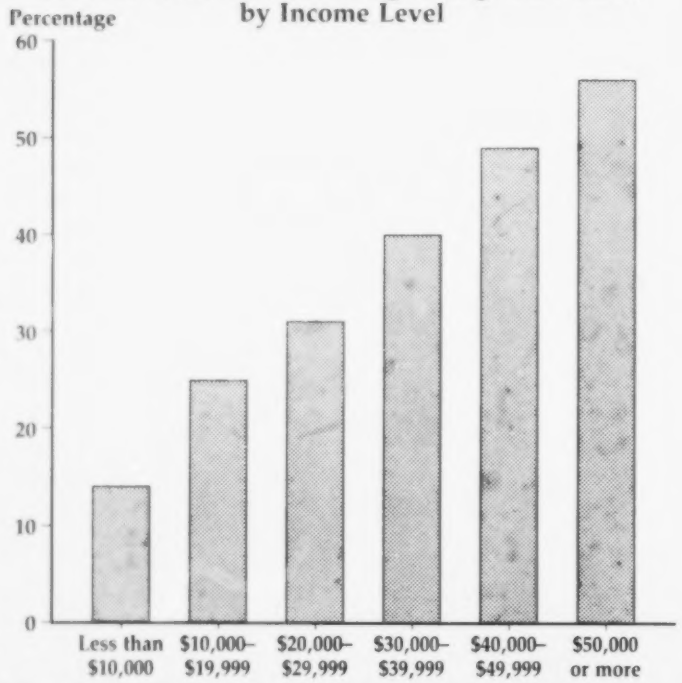
About 11.6 million families in the United States—18 percent of all families—have one or more members who are between the ages of 18 and 24. Of these families, about 35 percent had one or more such members attending college full-time in October 1986.

Among families with at least one 18- to 24-year-old, the following percentages are sending a family member in that age group to college full-time:

- 56 percent of families with incomes of $50,000 or more;
- 49 percent of families with incomes of $40,000 to $49,999;
- 40 percent of families with incomes of $30,000 to $39,999;
- 31 percent of families with incomes of $20,000 to $29,999;
- 25 percent of families with incomes of $10,000 to $19,999; and
- 14 percent of families with incomes of under $10,000.

These estimates are for the civilian noninstitutional population and are based on the Current Population Survey. Estimates do not include families in which the only member 18 to 24 years old is the family householder, and families in which the householder is a member of the Armed Forces.

Percentage of Families with One or More Members 18 to 24 Years Old Attending College Full Time, by Income Level



Source: U.S. Bureau of the Census, Current Population Reports, Series P-20, "School Enrollment—Social and Economic Characteristics of Students: October 1986," U.S. Government Printing Office, Washington, DC, forthcoming.

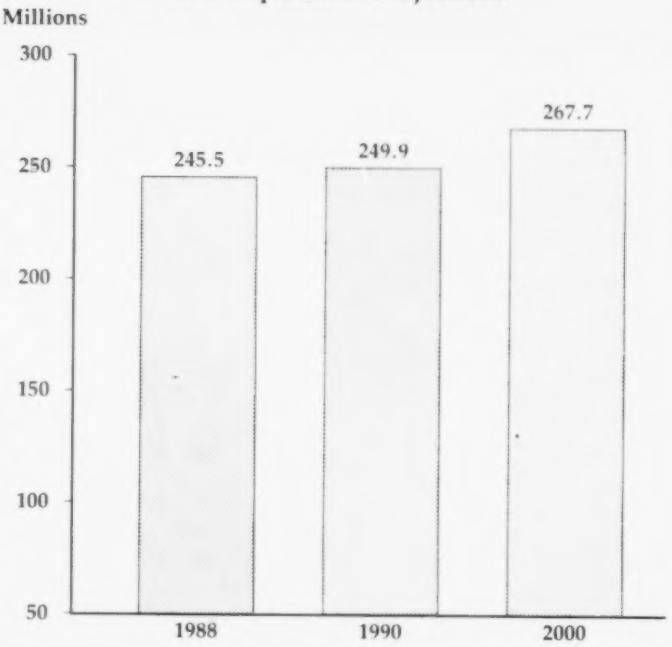
U.S. Population to Grow 10 Percent By 2000

As of July 1, 1988 an estimated 245.5 million people were living in the United States, according to the Census Bureau.

- California, Texas, and Florida will account for more than one-half of the total U.S. population increase by the year 2000.
- California will remain the most populous state with 33.5 million.
- Regionally, growth in the South and West will outpace growth in the nation as a whole. By 2000, these regions are expected to grow by 20.6 million, while the rest of the nation will only grow by 1.6 million.
- All northeastern state populations will grow with New Hampshire having the greatest increase (23 percent).
- Midwestern states are expected to have the least growth (122,000).

Source: Census Bureau, U.S. Department of Commerce, Projections of the Population of States, by Age, Sex, and Race: 1988 to 2010, April 1988.

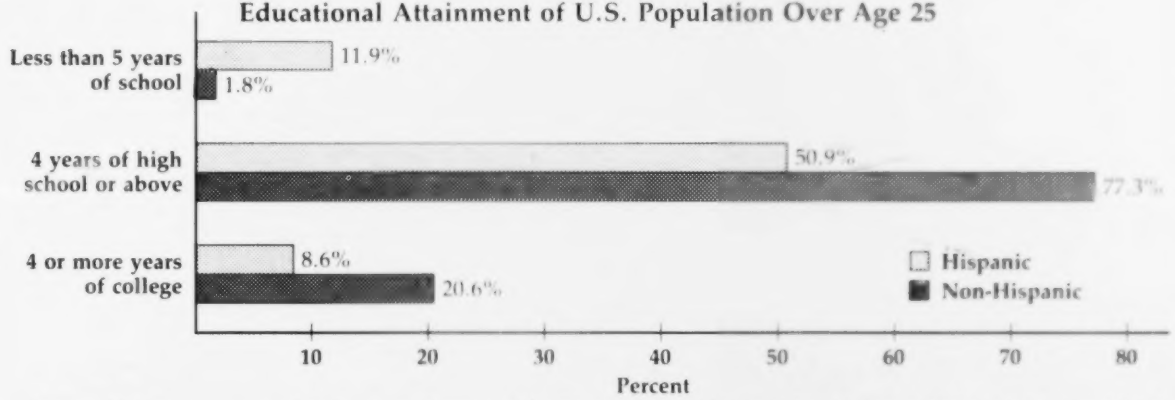
U.S. Population Projections



Hispanic Population Up 22 Percent Since 1982

- The nation's Hispanic population reached 18.8 million in March 1987, a 22 percent increase since 1982. Persons of Hispanic origin account for 8 percent of the total population.
- The median age of the Hispanic population is 25.1 years, compared to 32.6 years for the non-Hispanic population.
- The educational attainment of Hispanics has improved since 1982, but lags behind that of non-Hispanics.
- In 1987, of the 9.4 million Hispanics aged 25 years and older, 51 percent had completed at least high school. About 9 percent had completed four or more years of college.
- Of the 140 million non-Hispanics aged 25 and older, 77 percent have completed at least high school. Nearly 21 percent of non-Hispanics have completed four or more years of college.

Educational Attainment of U.S. Population Over Age 25

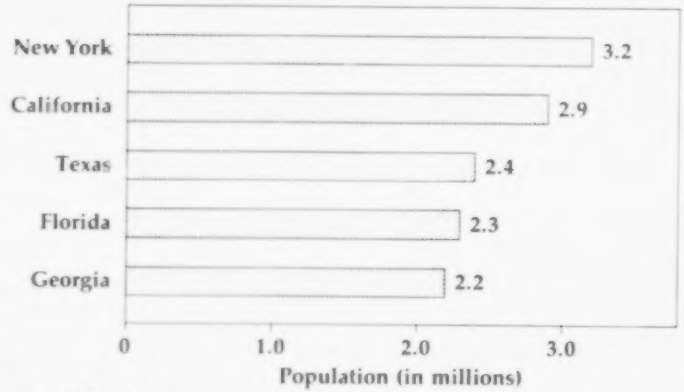


Source: U.S. Department of Commerce, Bureau of the Census. "The Hispanic Population in the United States: March 1986 and 1987 (Advance Report)," *Current Population Reports*, Series P-20, No. 416, August 1987.

Five States Expected To Account for Half of Black Population Growth By the Year 2000

- Half of the growth in the nation's black population between 1988 and 2000 will occur in five states, according to recent projections by the Census Bureau.
- About 2.4 million of the projected 4.8 million increase in the number of blacks will be in California, Florida, Georgia, Texas, and New York. The black population in those states will grow by 631,000; 547,000; 435,000; 402,000; and 389,000, respectively.
- By 2000, more than one-third of the black population will live in New York, California, Texas, Florida, and Georgia.
- By 2000, the nation's black population will total 35 million, an increase of 16 percent over 1988. The total population will increase 9 percent, to 268.3 million.
- The population of black 18- to 24-year-olds will decrease from 3.9 million in 1988 to 3.6 million in 1995, but rise again to about 3.8 million in 2000.
- The nation's black population between the ages of 5 and 17 will increase by 11 percent between 1988 and 2000, to 7.9 million.

Five States Expected To Have the Largest Black Population in 2000



Source: U.S. Bureau of Census, *Current Population Reports*, series P-25, No. 1017, Projections of the Population of States, by Age, Sex and Race: 1988 to 2010.

Future Jobs Will Require More Education

According to the Bureau of Labor Statistics, the U.S. economy will create more than 21 million jobs between 1986 and the year 2000. Based on the bureau's moderate-growth projections:

- The labor force will reach 139 million in the year 2000. The size of the labor force will grow more slowly than it did between 1972 and 1986. The work force of the future will be older and made up of more women and minority workers than in the past.
- Employment in the broad occupational groups requiring the most educational preparation—such as executive, administrative, and managerial workers; professional workers; and technicians and related support workers—will grow faster than the average.
- The occupational groups requiring the least educational preparation are expected to grow slowly or decline, except for a rapid increase in the number of service workers.
- Despite the faster than average growth in employment for occupations requiring a bachelor's or higher degree, the surplus of college graduates that began in the early 1970s is expected to continue through the end of the century.

Occupational Groups Expected To Show Largest Growth, 1986–2000

Source: U.S. Department of Labor, Bureau of Labor Statistics, *Monthly Labor Review*, September 1987.

STATUS OF WOMEN AND MINORITIES

Rate of Growth Slows for Number of Women College and University Presidents

Today 296 colleges and universities have a woman as chief executive officer. The number of women CEOs has doubled since 1975, but there are only 10 more women college and university presidents than there were in 1984.

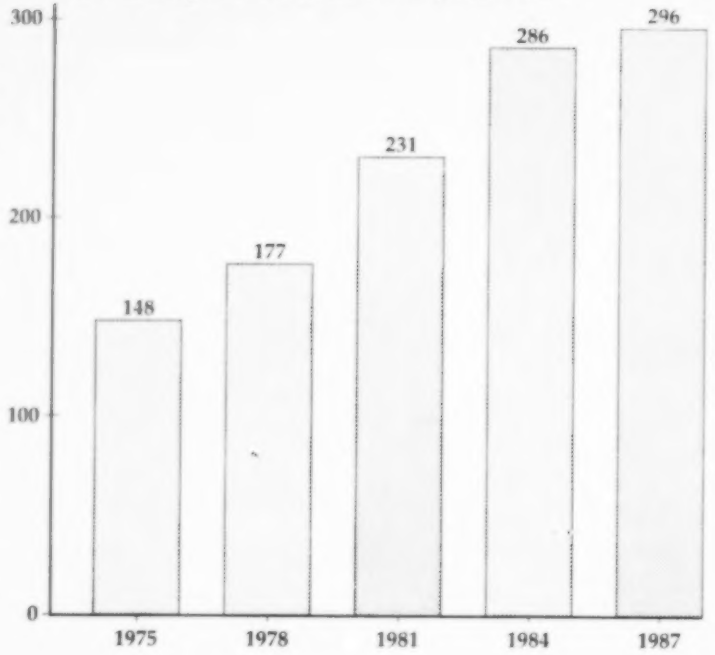
In 1987:

- 39 women headed four-year public institutions;
- 73 women were presidents of two-year public institutions;
- 156 women were presidents of four-year independent institutions; and
- 28 women headed two-year independent institutions.

Appointments of women in both the public and private sectors of higher education have continued to increase since 1975. Thirty-eight percent of women presidents head public institutions, up from 11 percent in 1975.

Source: American Council on Education, Office of Women in Higher Education, 1988.

Women Chief Executive Officers of U.S. Colleges and Universities, 1975–1987



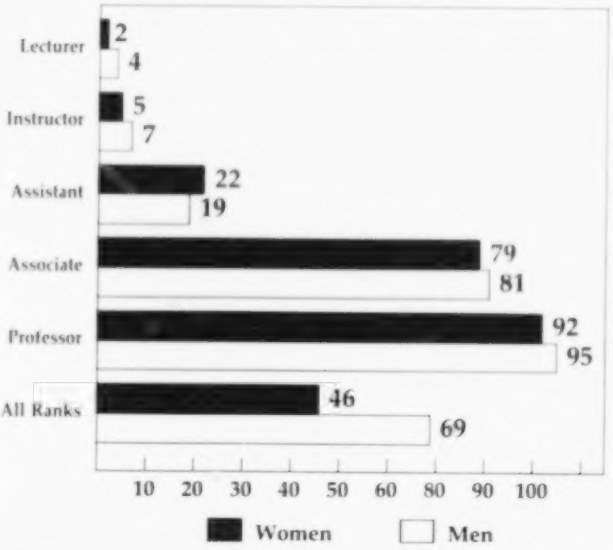
Women Are Making Progress in Tenure Status

Women faculty seem to be making progress in their tenure status at certain ranks.

- Women professors were just as likely to be tenured as their male counterparts in 1987–88 (92 percent versus 95 percent, respectively).
- In 1987–88, women assistant professors were more likely to be tenured than men of this rank (22 percent versus 19 percent, respectively).
- Overall, full-time women faculty continue to be less likely to hold tenure than their male counterparts. This is because men are disproportionately in the upper ranks of faculty, while women are overrepresented in the lower ranks. In 1987–88, 46 percent of women faculty were tenured, compared to 69 percent of men.
- A larger proportion of women faculty at public institutions (48 percent) hold tenure than their counterparts at private and church-related institutions (40 percent for both).

Source: American Association of University Professors, "Annual Report on the Economic Status of the Profession, 1987–88," *Academe*, March-April 1988.

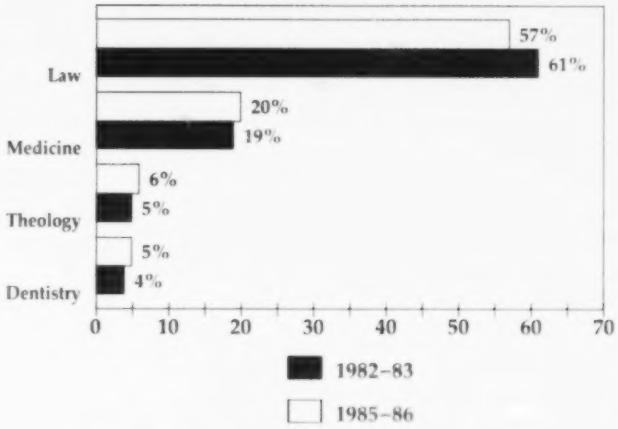
Percentage of Faculty with Tenure at All Institutions by Academic Rank and Sex, 1987–88



Increasing Numbers of Women Are Earning Professional Degrees

- Between 1982–83 and 1985–86, the number of first professional degrees awarded increased slightly (1 percent) from 72,032 in 1981–82 to 73,910 in 1985–86.
- During the period 1983 to 1986, the number of first professional degrees awarded to women increased from 21,826 to 24,649, an increase of 13 percent.
- In 1985–86, 57 percent of all first professional degrees earned by women were in the field of law, a 4 percent decline over 1982–83.
- The number of first professional degrees awarded to women in 1985–86 by field of study, were:
  - —Law 13,970
  - —Medicine 4,916
  - —Theology 1,418
  - —Dentistry 1,139
  - —Veterinary Medicine 1,079
  - —Other 2,127

Percent of First Professional Degrees Awarded to Women

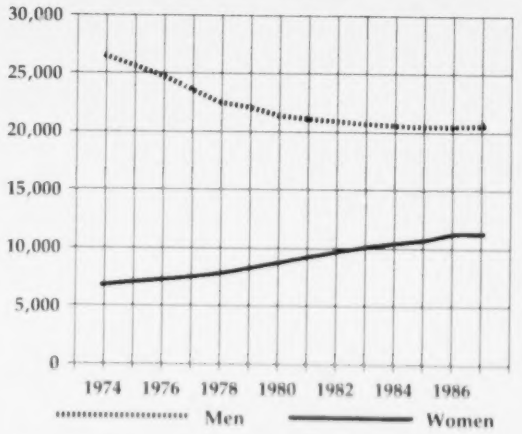


Source: Digest of Education Statistics, 1988.

Women Are Earning More Doctorates

- Women have increased their share of doctorate degrees awarded. During the decade 1977 to 1987, the number of women receiving Ph.D.s increased 45 percent, from 7,845 to 11,370. During the same period the number of men receiving doctorates declined 12 percent, from 23,827 to 20,908.
- Women represented 35 percent of doctorate recipients in 1987 and 32 percent in 1982.
- Most of the doctorates awarded to women in 1987 were in the field of education (31 percent). Another 22 percent earned doctorates in the social sciences.
- Between 1982 and 1987, the number of doctorates awarded to women in the social sciences increased 7 percent, while the degrees awarded to men in these fields declined 17 percent.
- The number of doctorates awarded to women in the field of education increased 37 percent between 1977 and 1987, while the doctorates awarded to men in this field declined 40 percent. However, between 1986 and 1987, the number of doctorates awarded to women in education declined slightly by 1 percent.

Doctorates Awarded, 1977 to 1987



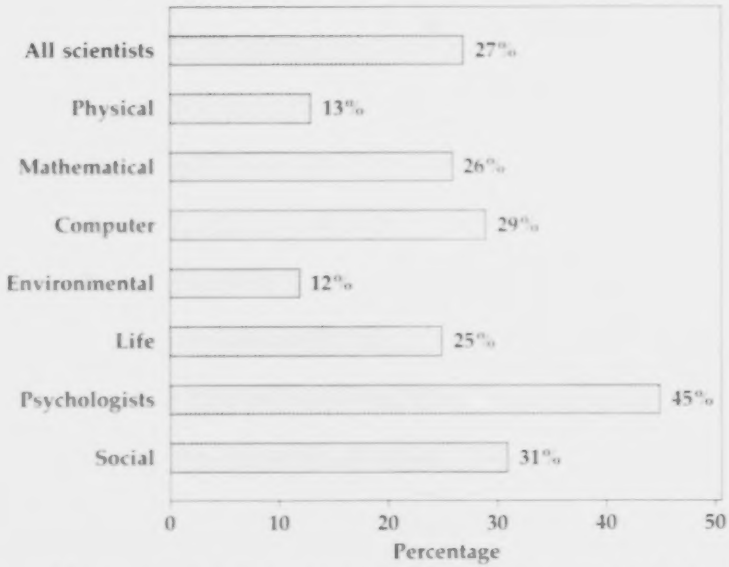
Source: National Research Council, "Summary Report, Doctorate Recipients from United States Universities," selected years.

- More than half (54 percent) of all the Ph.D.s awarded to men in 1987 were in the sciences—physical or life sciences or engineering. Twenty-seven percent of doctorates awarded to women were in the sciences.
- Between 1986 and 1987, there was a 28 percent increase in engineering doctorates awarded to women; however, women earned only 7 percent of all doctorates awarded in this field in 1987.

One-Quarter of All Employed Scientists Are Women

- In 1986, 698,600 women scientists and engineers were employed in the United States. This represents 15 percent of all scientists and engineers, up from 9 percent in 1976.
- In 1986, more than 1 in 4 scientists was a woman; however, only 1 in 25 engineers was female.
- Among women scientists and engineers, about 5 percent were black (34,500); 5 percent were Asian (36,300); 3 percent were Hispanic (19,600); and less than 1 percent were American Indian (2,700).
- The proportion of women within scientific fields ranged from 12 percent of environmental scientists to 45 percent of psychologists. In engineering, the range was from 3 percent of both mechanical and electrical/electronics engineers to nearly 8 percent of chemical engineers.

Women Among Employed Scientists, 1986



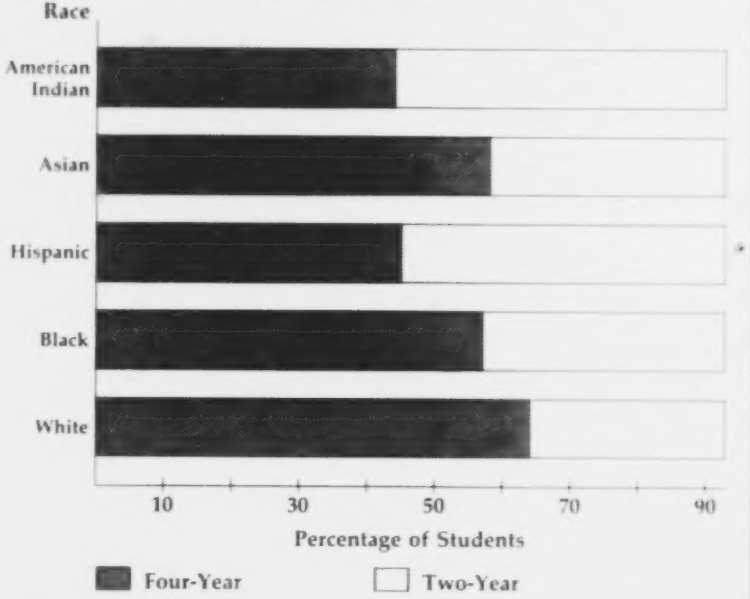
Source: "Women and Minorities in Science and Engineering," National Science Foundation (Demographic Studies Group, 1800 G. St., NW, Rm. L-611, Washington, DC 20550), January 1988.

Fewer Black Males Enroll in College

More black males completed high school in 1986 than in 1976; however fewer are enrolling in college.

- Between 1976 and 1986, the number of black males enrolled in higher education declined 7 percent, while the share of black females enrolled remained steady.
- At the same time, high school completion rates for 18-to-24-year-old black males increased from 62 percent to 72 percent.
- Overall, minority enrollment increased 8 percent between 1984 and 1986. Hispanic and Asian enrollment increased 17 percent and 15 percent, respectively. American Indian enrollment increased 7 percent; and enrollment of black students remained steady.
- More than half of all Hispanics (55 percent) enrolled in higher education attended two-year institutions.
- In 1986, minorities represented 10 percent of all four-year students and 8 percent of all two-year students enrolled in higher education institutions.

Percentage of Students Enrolled in Two-Year or Four-Year Institutions, 1986



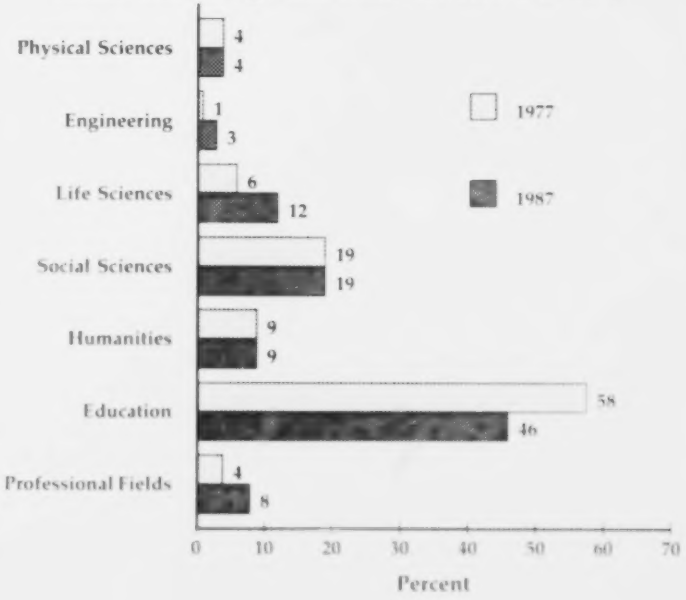
Source: Data are abstracted from the "Seventh Annual Status Report on Minorities in Higher Education," available from the Office of Minority Concerns, American Council on Education, One Dupont Circle, Washington, DC 20036; $8.50 per copy, prepaid only.

Blacks Receiving Fewer Ph.D.s

- Colleges and universities awarded 32,278 doctorates in 1987, a slight increase of 1 percent over 1986.
- Between 1982 and 1987, the number of Ph.D.s awarded to blacks, who were U.S. citizens, fell by more than a quarter (27 percent).
  - —Between 1986 and 1987, the number of black doctorate recipients declined 7 percent from 822 to 765.
- Blacks represented 2 percent of all doctorate recipients in 1987, the smallest percentage since 1973.
- The field of education continues to attract the largest proportion of black doctoral students, although a slightly smaller proportion earned education degrees in 1987 than in 1986.

Source: "Summary Report 1987: Doctorate Recipients From United States Universities," National Academy Press, 1989.

Fields Chosen by Black Ph.D.s, 1977 and 1987



Minorities are Earning Fewer Degrees

- In academic year 1984–85, 968,311 bachelor's degrees were awarded; 12 percent were earned by minorities.
- Between 1982–83 and 1984–85, the number of bachelor's degrees awarded to all minorities increased by 2 percent, from 110,375 to 112,988.
- Minorities earned 11 percent of all master's degrees in 1984–85, compared to 10 percent in 1982–83.
- The number of master's degrees earned by nonresident aliens increased 22 percent between 1981 and 1985.
- In 1984–85, the largest proportion of master's degrees earned by minorities (32 percent) was in the field of education; however, between 1975 and 1985, the proportion of minorities earning degrees in this field declined by 41 percent.
- Between 1982–83 and 1984–85, the number of minorities earning master's degrees in business and management increased by 11 percent.
  - —In 1983, minorities earned 5,504 master's degrees in this field, compared to 6,106 in 1985.

Degrees Awarded by Race and Ethnicity, 1984–85

	Black	Hispanic
Bachelor's	57,473	25,874
Master's	13,939	6,864
Doctorate	1,154	677

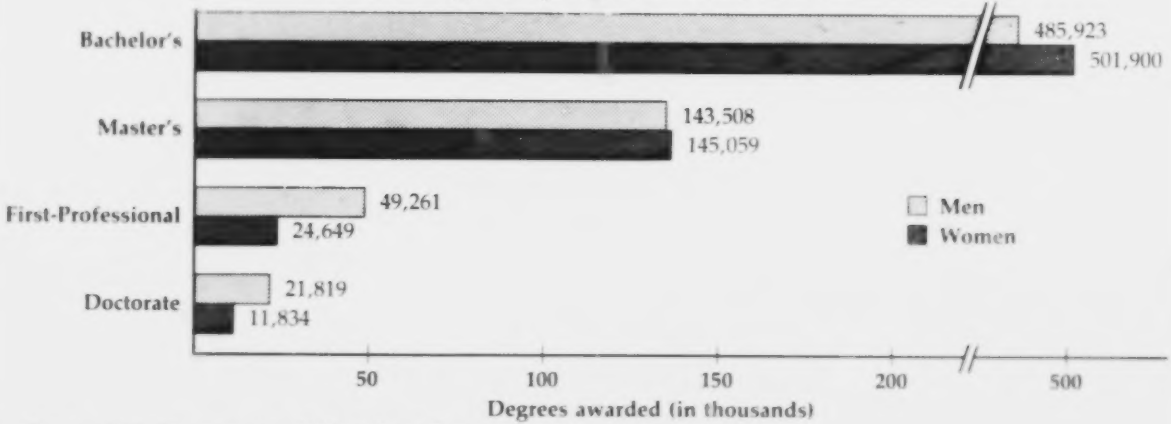
	American Indian	Asians
Bachelor's	4,246	25,395
Master's	1,256	7,782
Doctorate	119	1,106

Source: American Council for Education, Office of Minority Concerns, Sixth Annual Status Report, 1987.

Women Continue to Show Gains in Earned Degrees

- In 1986, U.S. colleges and universities awarded 1,383,953 baccalaureate, master's, doctoral, and first-professional degrees, up 0.7 percent over 1985.
- The total number of degrees awarded to women increased 1.2 percent, compared to an increase of 0.3 percent for men.
- The number of doctoral degrees awarded to women increased by 5.3 percent over 1985. Women represented 35.2 percent of doctorate recipients in 1986 and 34.1 percent in 1985.
- Overall, the number of first-professional degrees declined 1.5 percent, while the number of all other degrees increased. Men were awarded 2.4 percent fewer first-professional degrees while women were awarded approximately the same number of these degrees in 1986 as in 1985.
- In 1986, women received 50.8 percent of the bachelor's degrees and 50.3 percent of the master's degrees.

Earned Degrees by Level and Sex, 1985–86



Source: U.S. Department of Education, Center for Education Statistics, 1988.

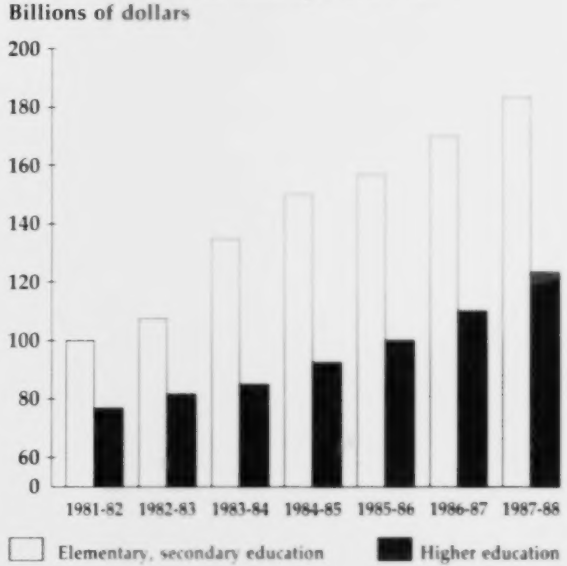
CAMPUS AND INSTITUTIONAL TRENDS

Higher Education as a U.S. Industry

Higher education not only contributes to the intellectual welfare of the United States, but is also a major industry.

- In 1986–87, there was a total of 3,406 institutions of higher education in the U.S. and outlying areas. Of those institutions, 48 percent were in the independent sector, 45 percent were in the public sector and 7 percent were proprietary degree granting institutions.
- Total 1987–88 expenditures for colleges and universities are expected to reach $124 billion. This represents a seven percent increase over 1986–87, and after adjusting for inflation, a 17 percent increase since 1980–81. In comparison, the total expenditures for elementary and secondary education in 1987–88 are expected to be $183.7 billion.
- Projections indicate that higher education expenditures will represent 6.7 percent of the Gross National Product (GNP) in 1987–88.
- Total voluntary support to higher education was estimated to be $8.5 billion in 1986–87. This was a $1.1 million increase over the previous year.
- For the fall of 1987, total enrollment was projected to be 12.5 million in the United States.
- In the fall of 1987, colleges and universities employed 2 million people.

Education Expenditures, Academic Years 1981–82 through 1987–88

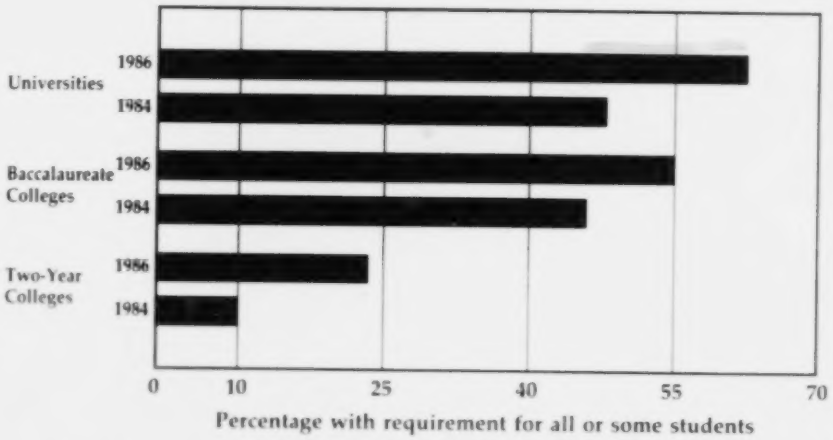


Sources: Digest of Education Statistics, 1988, and U.S. Department of Education News Release, "Education Expenditures Soar as Schools Open", August 1987.

Campus Trends, 1988

- A variety of assessment or effectiveness measures are currently in use. Fourteen percent of colleges now have minimum competency tests of college-level skills. Seventeen percent administer comprehensive exams in the major. Sixty-five percent have assessment in place for basic level skills.
- By 1988, more than 9 out of 10 colleges and universities had completed or were still in the midst of curriculum changes.
- Eighty-five percent of the institutions reported greater emphasis on improving writing skills. Only 1 in 10 require all graduates to demonstrate foreign language proficiency.

Foreign Language Requirements for Completion of an Undergraduate Degree

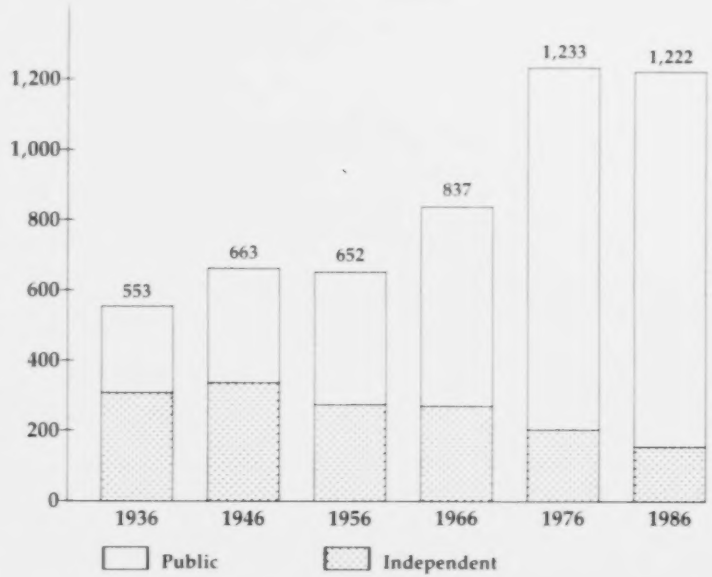


Source: Elaine El-Khawas, "Campus Trends, 1988." Copies available from the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193. $5 for members; $8 for nonmembers, prepaid.

Community, Junior, and Technical Colleges: Enrollment and Associate Degree Attainment

- The number of community, junior, and technical colleges has more than doubled in the last 50 years. In fall 1986, there were 1,222 two-year institutions compared to 553 institutions in fall 1936.
- While the number of public two-year institutions increased four-fold between 1936 and 1986, the number of independent two-year institutions decreased by 50 percent.
- In fall 1987, an estimated 4.7 million students were enrolled in community, junior, and technical colleges.
- About 63 percent of the students at two-year institutions were enrolled part-time in fall 1987, compared to 30 percent of the students at four-year institutions.
- Women made up 56 percent of the enrollment at two-year institutions in 1987, compared to 54 percent in 1985.
- The number of associate degrees awarded peaked in 1982–83 at 456,441. An estimated 427,000 associate degrees were conferred in 1986–87.

Number of Community Colleges: Fall 1936 – Fall 1986

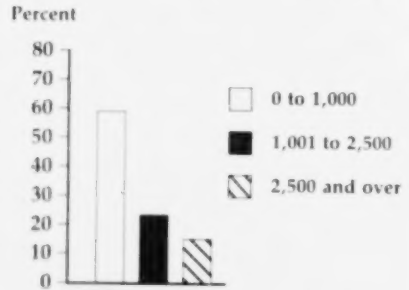


Sources: *Community College Fact Book*, a joint publication of the American Council on Education and the American Association of Community and Junior Colleges. (Available from Macmillan Publishing Co., 866 Third Ave., New York, NY 10022.). Also "Early Estimates: National Estimates of Higher Education Statistics: 1987," Center for Education Statistics, December 1987.

Most Independent Campuses Enroll 1,000 or Fewer Students

- In academic year 1986–87, there were 1,660 independent non-profit institutions in the United States and outlying areas; this represents 47 percent of all institutions in that year.
- Between 1985 and 1986, enrollment at independent institutions remained stable at 2.7 million.
- In 1986–87, 1,873,523 million students were enrolled full-time at independent institutions; 797,210 were enrolled part-time.
- In academic year 1986–87, the majority (58.8 percent) of independent institutions had enrollments of 1,000 students or less.
- Most students attending independent non-profit institutions in 1986–87 did so in the Mid East region (30.2 percent). The distribution of enrollment in other regions was: Great Lakes, 15.5 percent; New England, 13.9 percent; Southeast, 14.3 percent; Far West, 8.7 percent; Plains, 7.5 percent; Southwest, 4.0 percent; Rocky Mountain, 2.3 percent; and outlying areas, 3.5 percent.

Distribution of Independent Colleges by Enrollment Size, 1986–87

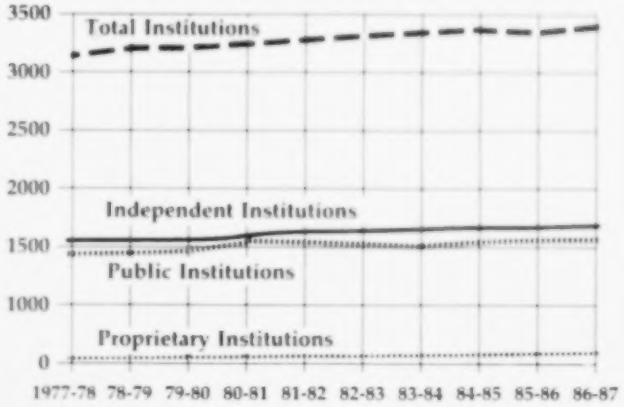


Source: American Council on Education, Division of Policy Analysis and Research, special analysis of the Center for Education Statistics 1986 IPEDS enrollment data tapes.

Profile of Higher Education Institutions

- In academic year 1986–87, there was a total of 3,483 institutions of higher education in the United States. Of those, 1,560 were public institutions (44.8 percent); 1,660 were independent (47.7 percent); and 263 were proprietary (7.6 percent).
- Between 1985–86 and 1986–87, the number of institutions increased by 3 percent; proprietary institutions in contrast increased 17 percent during this period.
- In 1986–87, there were 586 public four-year colleges and universities and 970 public two-year institutions. In the independent sector, there were 1,483 four-year institutions and 175 two-year colleges. There were 36 four-year and 207 two-year degree-granting institutions in the proprietary sector.

Number of Higher Education Institutions in the U.S., 1977–78 through 1986–87



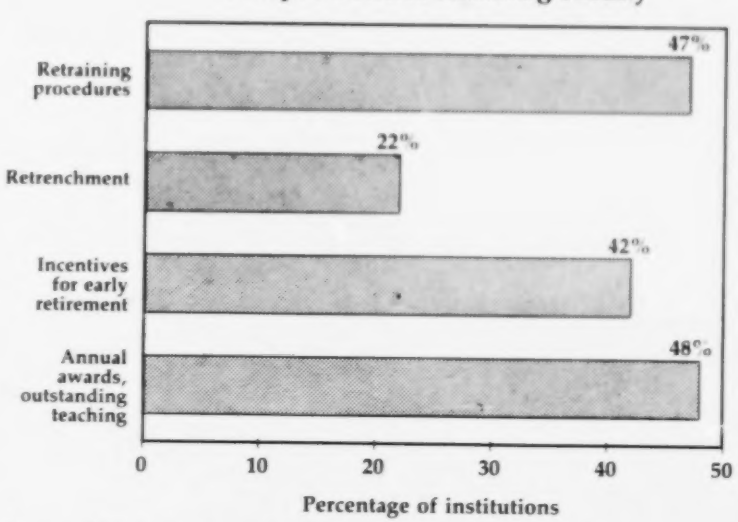
Sources: American Council on Education, Division of Policy Analysis and Research, special analysis of Integrated Postsecondary Education Data System (IPEDS) enrollment data, 1986–87; National Center for Education Statistics, "Education Directory: Colleges and Universities, 1983–84."

Campus Policies Affecting Faculty Differ

Findings from "Campus Trends, 1987," published by the American Council on Education (ACE), reveal substantial differences among colleges in their faculty personnel policies.

- Almost half of the nation's colleges and universities reward outstanding teaching through annual awards. Nearly all doctoral universities, and about 40 percent of two-year colleges, reported such policies.
- About half of the institutions have procedures to retrain faculty to meet changing program needs. Two-year colleges are most likely to have such procedures.
- One in five institutions has retrenchment procedures underway to reduce the number of faculty.
- About four in ten institutions offer their faculty incentives for early retirement. Among doctoral universities, seven in ten have such policies.

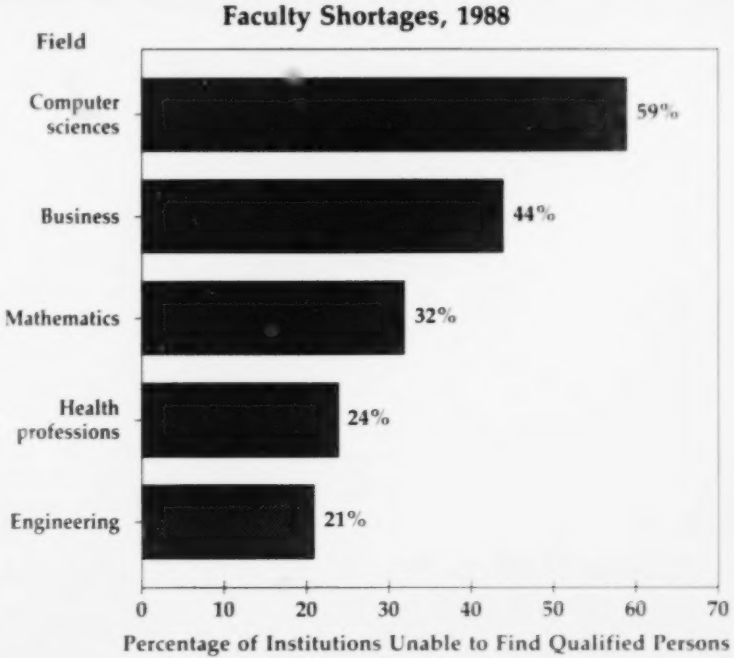
"Campus Trends, 1987" is the fourth in a series of surveys providing timely information on American colleges and universities. This report also describes campus attention to student assessment, changes in curriculum, enrollment, campus finances, and faculty hiring practices.



Source: Elaine El-Khawas, "Campus Trends, 1987." For copies, send a check payable to the American Council on Education to: Division of Policy Analysis and Research, American Council on Education, One Dupont Circle NW, Washington, DC 20036-1193 (prepaid; $5 for ACE members, $8 for nonmembers).

Academic Disciplines Face Faculty Shortages

- Several high-demand academic fields are facing problems in recruiting faculty, according to *Campus Trends, 1988*, a survey of chief academic officers.
- The problem is most widespread in computer science. Institutions unable to find qualified persons for vacant positions in computer science included:
  - 86 percent of doctoral universities;
  - 65 percent of comprehensive universities;
  - 62 percent of baccalaureate colleges; and
  - 50 percent of two-year colleges.
- In business, 44 percent of institutions were unable to find qualified persons; 68 percent of doctoral universities and 70 percent of comprehensive universities reported shortages in business.
- As a further indication of a tightening academic labor market, 37 percent of institutions reported greater difficulty this year than last in getting top applicants to accept positions. In 1987, only 25 percent reported increased difficulty.

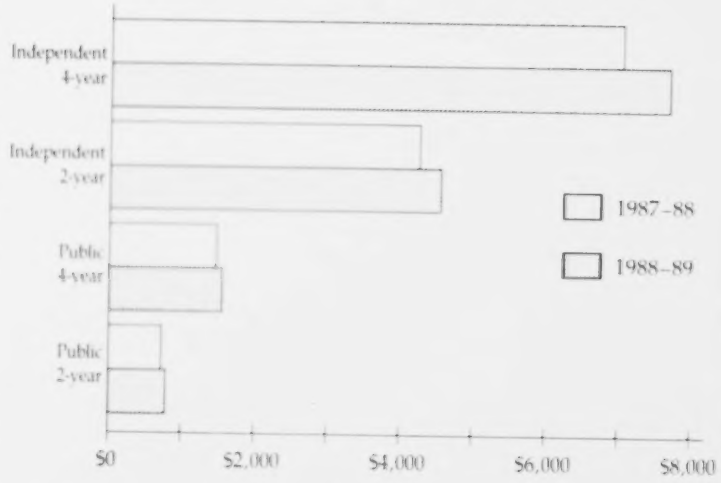


Source: *Campus Trends, 1988*. Copies of the report are available for $5 (prepaid) for ACE members and $8 for nonmembers from the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, D.C. 20036.

Tuition and Fees in 1988–89

- Tuition and fee charges for the average student at a public four-year college will increase to $1,566 in the 1988–89 academic year. At independent four-year institutions the comparable figure will be $7,693. These represent increases of 5 percent and 9 percent respectively over 1987–88 charges.
- The average student at a two-year public college can expect to pay 4 percent more than last year for tuition and fees, which increased to $767. At independent two-year colleges, the increase was 7 percent, raising the tuition and fee charges to $4,564.
- For the average student at a public four-year college or university, total on-campus expenses—tuition and fees, room and board, books, supplies, and personal items—are estimated to be $5,823. This includes the tuition and fee figure shown above plus $2,879 for room and board, $411 for books and supplies, and $967 for other expenses.

Average Tuition and Fees for Undergraduates



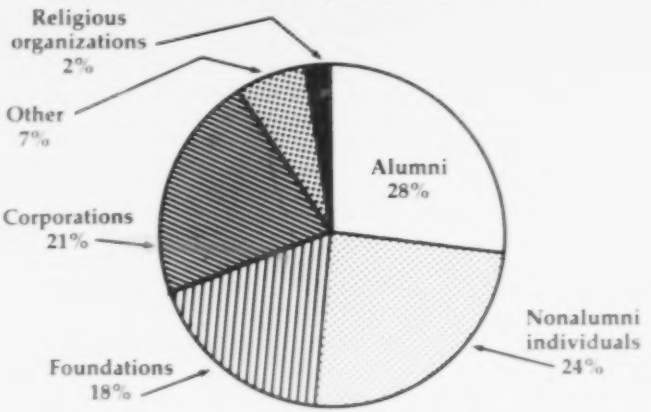
- The average student living on campus at an independent four-year institution will face total on-campus expenses of $12,526. This is made up of tuition and fees plus room and board charges of $3,637, books and supplies estimated at $427, and other expenses amounting to $769.
- For the average commuter student at a public two-year college, total expenses are estimated at $4,111. This consists of tuition and fees ($767) plus $1,313 for board only, $781 for transportation, $391 for books and supplies, and $859 for other expenses.

Source: *College Board Annual Survey of Colleges, 1988.* Copyright 1988 College Entrance Examination Board. Used with permission.

Voluntary Support of Higher Education Increases to $8.5 Billion

- In 1986–87, total voluntary support of higher education was estimated at $8.5 billion. This represents a $1.1 billion dollar increase over 1985–86, according to the Council for Aid to Education.
- In 1986–87, alumni/ae donations increased more than 28 percent over 1985–86, to $2.35 billion.
- In 1986–87, corporations donated $1.82 billion, and foundations donated $1.51 billion.
- Religious organizations donated $204 million, a 3 percent decrease compared to 1985–86.
- About 52 percent of all voluntary support was for current operations in 1986–87; gifts for capital purposes accounted for 48 percent of the total.

Voluntary Support, by Source
Total = $8.5 Billion



Source: "Voluntary Support of Education, 1986–87," Council for Aid to Education. Available for $35 (prepaid) from CFAE, 680 Fifth Ave., New York, NY 10019.

Federal Funds Are Increasing for Science and Engineering Research and Development

Over the last 10 years, federal allocations to higher education institutions for research and development have increased in science and engineering areas.

- In fiscal year 1986, federal funding to colleges and universities for academic science and engineering research is estimated to be $6.5 billion; this is a 3 percent increase over the previous year.
- However, federal funds for fellowships, traineeships, and training grants for science and engineering students have decreased slightly between fiscal year 1985 and 1986 (3 percent).
- Funds have increased for nonscience and engineering as well. Between fiscal year 1980 and 1986, federal allocations increased from $3.5 billion to $4.2 billion.

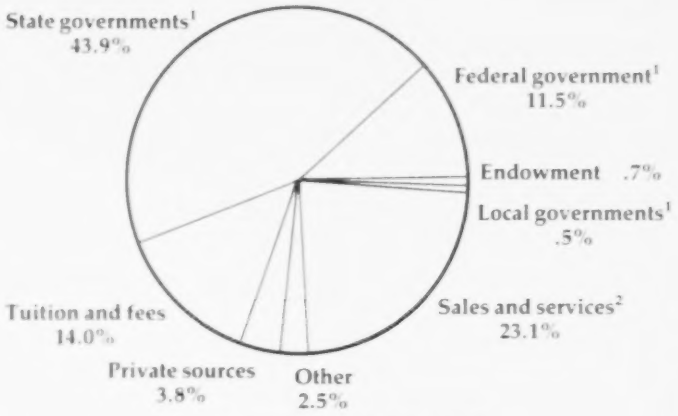
Source: National Science Foundation, *1988 Science and Technology Data Book*.

Federal Funds to Colleges and Universities for Academic Science and Engineering Research and Development

Public Four-year Institutions: Enrollment and Revenues

- In 1986, there were 573 public four-year institutions of higher education, including universities and all other four-year institutions.
- About 5.3 million students were enrolled in the nation's public four-year institutions in 1986. During the past ten years, the number enrolled has remained relatively stable.
- In 1986, 3.7 million students were enrolled full-time, while 1.6 million students were enrolled part-time at public four-year institutions.
- Total current fund revenues at public four-year institutions were $53.7 billion for fiscal 1986; tuition and fees represented about 14 percent of revenues. In fiscal 1983, tuition and fees represented 13.8 percent of current fund revenues.
- Revenues from state governments, including appropriations of $22.7 billion and $823 million in grants and contracts, accounted for about 43.9 percent of revenues in fiscal 1986.

Sources of Revenue for Public Four-year Institutions of Higher Education, FY 1986



Total Revenues = $53.7 Billion

[1]Includes appropriations, grants, and contracts
[2]Includes educational activities, auxiliary enterprises, and hospitals

Sources: U.S. Department of Education, Center for Education Statistics, *Bulletin*, February 1988.

Most Colleges and Universities Accept Credit for Noncollegiate Learning

According to a recent American Council on Education (ACE) survey, "Admission and Credit Policies for Adult Learners," almost all institutions (92 percent) permit students to matriculate without a traditional high school diploma.

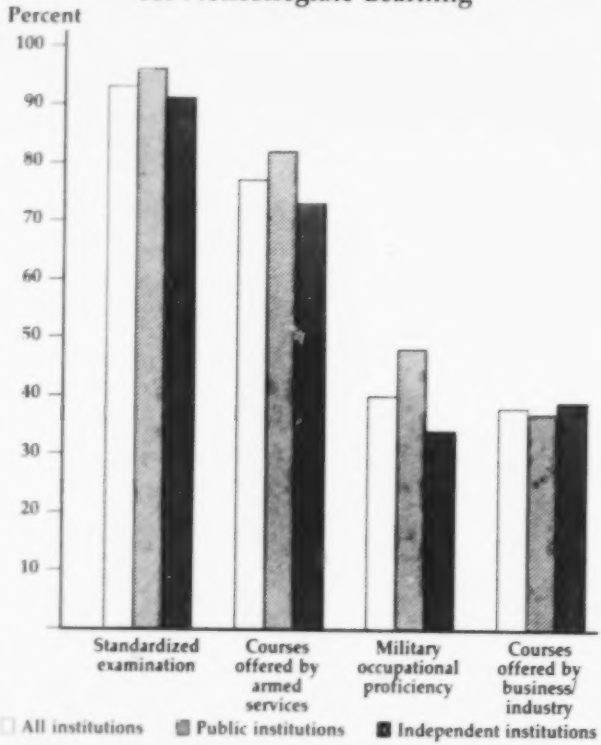
- Four-fifths of the nation's colleges admit students without the traditional high school diploma but require some other form of academic certification, such as a General Educational Development (GED) equivalency certificate.
- About 120,000 freshmen—or 5 percent of total freshmen enrollment—were admitted to college in fall 1985 on the basis of their GED scores.

The survey also found that nearly all institutions (97 percent) accept credit for learning acquired in noncollegiate settings.

- More than three-quarters (77 percent) of all colleges give credit for courses offered by the armed services.
- About two-fifths (38 percent) grant credit for courses conducted by business and industry.
- Almost all (93 percent) accept credit based on standardized examinations.

Source: Holly Hexter and Charles J. Andersen, "Admission and Credit Policies for Adult Learners," 1986. Copies available from the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193. (Prepaid, $5 for members; $8 for nonmembers.)

Institutions (by Type) that Grant Credit for Noncollegiate Learning



STUDENTS

College Enrollments Increase

Enrollments in the nation's colleges and universities increased 2 percent in the last year, despite the continuing decline in the number of 18-to-24-year-olds. Early national estimates show that in fall 1988:

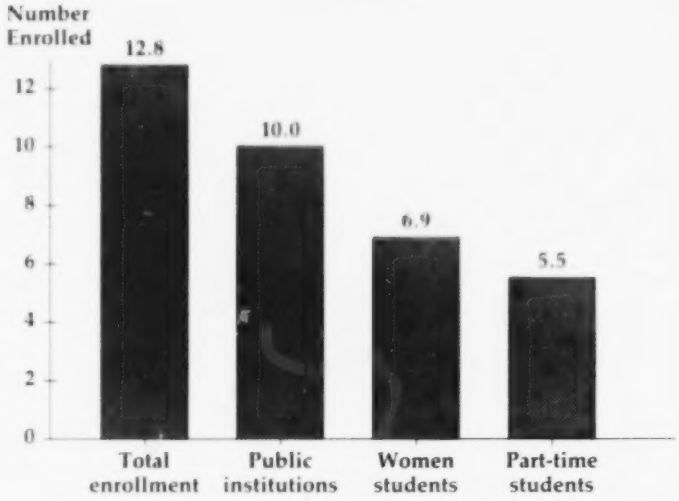
- 12.8 million students attended college;
- 10.0 million students—about 78 percent—were enrolled at public institutions;
- 5.5 million students—about 43 percent—were attending part-time; and
- Women accounted for 54 percent of all college students.

These estimates are based on responses from 651 institutions, a sample representative of 3,587 institutions of higher education in the United States, surveyed in fall 1988.

Source: U.S. Department of Education, Center for Education Statistics, "Early Estimates," (CS 89-315), December 1988.

Higher Education Enrollment, Fall 1988

(in millions)

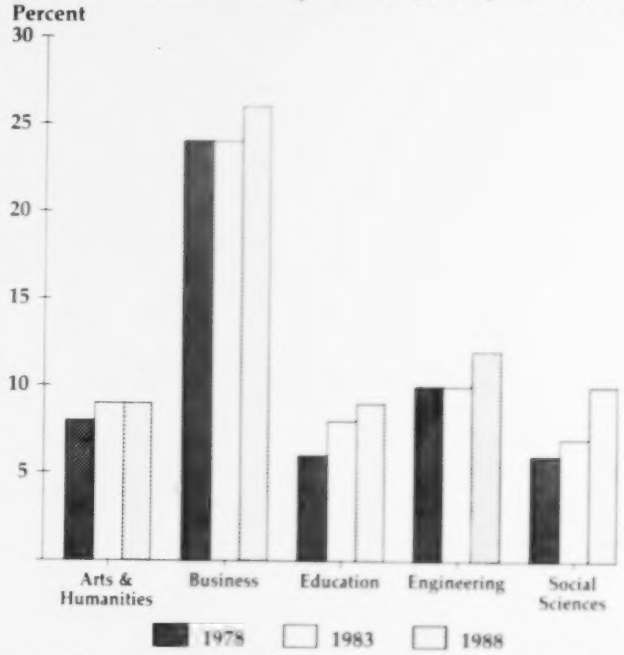


Most Freshmen Choose Career-oriented Majors

The last few years have seen very little change in the choice of majors by freshmen. Most of today's freshmen plan to major in career-oriented fields. However, the proportion planning to major in education and the social sciences increased slightly in the past year, while the share planning to study business declined.

- Slightly more than one-quarter of 1988 freshmen planned to major in business (26 percent), compared to 24 percent in 1978.
- Today's freshmen are more likely to plan majors in the social sciences than their counterparts five years ago; 10 percent of the freshmen in 1988 planned to major in the social sciences, while in 1983 the figure was 6 percent.
- Interest in teaching careers is rising. Almost 10 percent of freshmen in 1988 planned to pursue majors in the education fields, up from 8 percent last year and 6 percent in 1983.
- Twelve percent of freshmen entering college in 1988 planned to major in engineering, compared to 10 percent a decade ago.
- Twelve percent of 1988 freshmen showed an interest in professional fields, such as medicine, pharmacy, and nursing, compared to 14 percent in 1983.

Planned Freshman Majors, 1978, 1983, and 1988



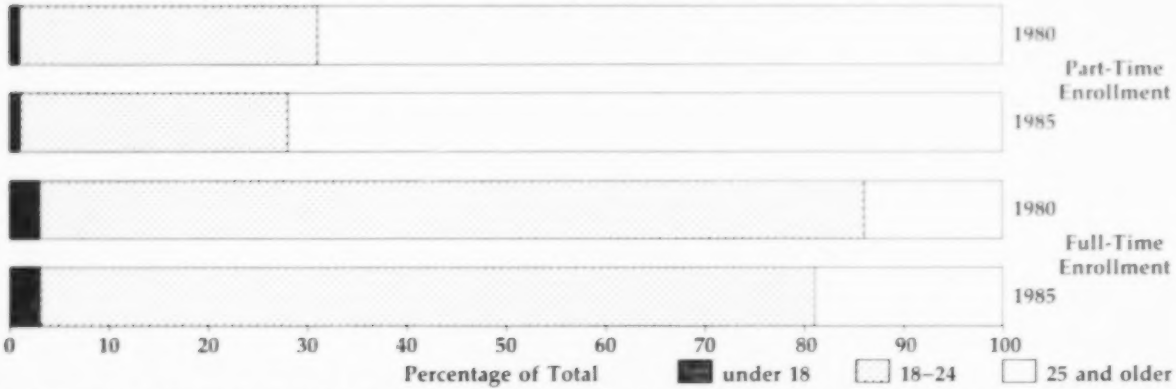
Source: American Council on Education and University of California, Los Angeles, "The American Freshman: National Norms," Fall 1978, 1983, and 1988.

Traditional-Age Students Still a Majority in Higher Education

Despite the increased enrollment of older students, traditional-age students (18-to-24-year-olds) still comprised a majority (56 percent) of college enrollments in 1985, compared to 60 percent in 1980.

- In contrast, older students (25 years and older) accounted for 42 percent of college enrollments, up from 37 percent in 1980.
- Between 1980 and 1985, the 18-to-24-year-old population decreased nearly 4 percent; however, the percentage enrolled in college increased slightly from 26 percent to 28 percent.
- Students 18 to 24 years old comprised the bulk of full-time enrollments. In 1985, this group represented 78 percent of full-time enrollments. Students 25 years and older accounted for 19 percent of all full-time students.
- Between 1980 and 1985, college enrollment of older students increased 12 percent. Most part-time students were 25 years and older; almost three out of four part-time students were in this age range in 1985.

Attendance Status by Age



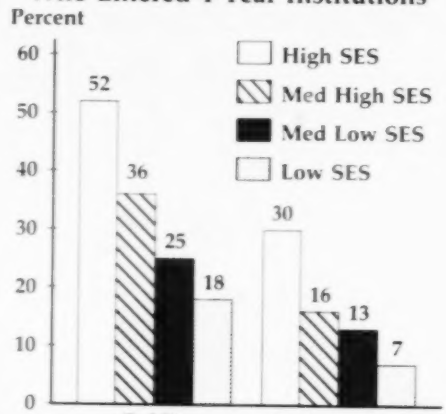
Source: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1988* (U.S. Government Printing Office, September 1988).

Six Years After High School

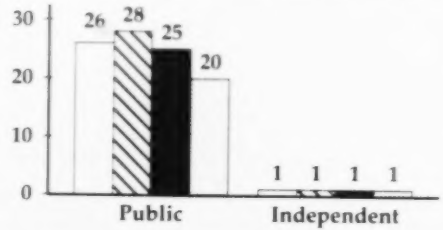
- The National Center for Education Statistics (NCES) has released the results of the third follow-up of the High School and Beyond survey of 1980 seniors. This report describes the activities in which these young people were engaged six years after high school.
- As of spring 1986, 66 percent of all 1980 seniors had entered some form of postsecondary education:
  - —16 percent had entered independent 4-year institutions,
  - —31 percent attended public 4-year institutions,
  - —25 percent were enrolled in public 2-year institutions, and
  - —6 percent had entered 2-year proprietary schools.
- Forty-eight percent of those who entered postsecondary education did so immediately.
- Four-year college entry rates varied by socioeconomic status (SES): 52 percent of students of high SES entered public 4-year institutions, 30 percent entered independent 4-year institutions, while 18 percent of those of low SES entered public 4-year institutions and 7 percent independent 4-year institutions.
- Young women were more likely to be engaged in postsecondary education than their male counterparts (69 percent vs. 63 percent).
- Asian Americans participated in postsecondary education at a greater rate than any other racial group; as of February 1986, 89 percent had entered postsecondary institutions. The percentage of other 1980 seniors enrolled in postsecondary education by race and ethnicity were:
  - —Whites—67 percent
  - —American Indians—58 percent
  - —Blacks—61 percent
  - —Hispanics—57 percent.
- The overwhelming majority (88 percent) of students who entered postsecondary institutions had studied an academic program while in high school.

Source: NCES, Cumulative Rates of Entry into Postsecondary Institutions by 1980 High School Graduates: September, 1980 through February, 1986, special tabulations.

Percent of 1980 Seniors Who Entered 4-Year Institutions

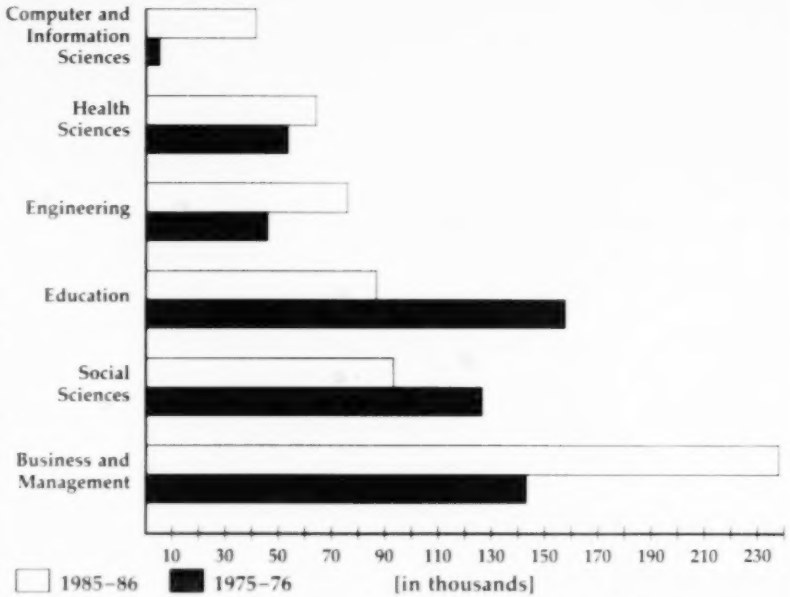


Percent of 1980 Seniors Who Entered 2-Year Institutions



Number of 'Career' Degrees Still on the Rise

- In 1985–86, 987,823 bachelor's degrees were awarded, which represents a 1 percent increase over the 1984–85 figure.
- Although the number of degrees awarded in business and management increased 36 percent between 1978–79 and 1983–84, during the academic year 1985–86 the growth in bachelor's degrees in this field slowed somewhat, with only a 2 percent increase.
- There was tremendous growth in the number of degrees awarded in computer and information sciences, from 38,878 degrees earned in 1984–85 to 41,889 in 1985–86, a 7.7 increase.
- Between 1984–85 and 1985–86, the number of bachelor's degrees earned in social science increased 2.5 percent.
- Bachelor's degrees awarded in education have been declining; during 1984–85 and 1985–86 the number of bachelor's degrees awarded decreased from 88,161 to 87,221 (1.1 percent).



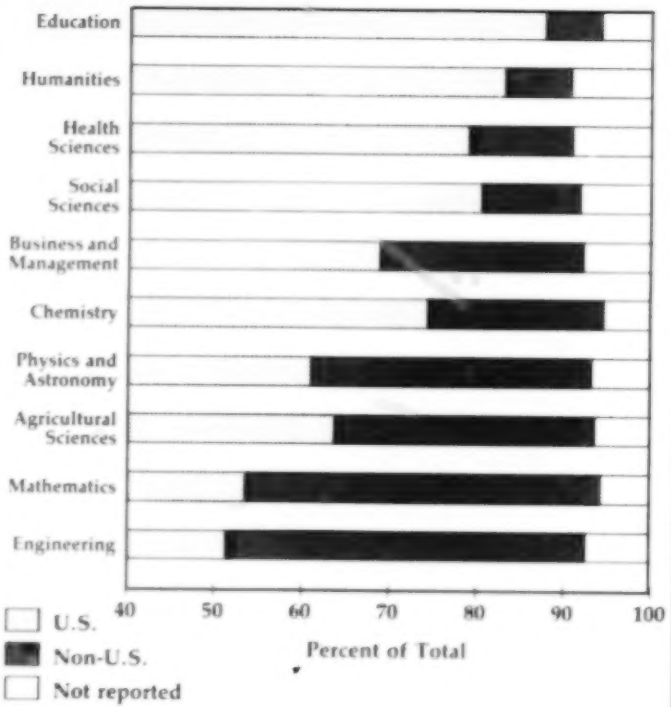
Source: U.S. Department of Education, Center of Education Statistics Bulletin, "Bachelor's and Higher Education Degrees Conferred in 1985–86," December 1987.

Foreign Students are Earning More Doctorates

- Foreign students are earning an increasing number of doctorates from U.S. universities. Between 1977 and 1987, the number of U.S. doctorates awarded to non-U.S. citizens increased by nearly 62 percent; doctorates awarded to U.S. citizens decreased by 11 percent.
- In 1987, 17 percent of the doctoral recipients were non-U.S. citizens (5,593 out of 32,278).
  - —In 1977, non-U.S. citizens represented 11 percent of all Ph.D's (3,447 out of 31,672).
- The proportion of doctorates awarded to non-citizens in 1987 was highest in the fields of engineering and mathematics (41 percent each).
  - —In 1982, foreign doctorate recipients earned 39 percent of all engineering doctorates and 27 percent of mathematics doctorates.
- In 1987, non-U.S. citizens earned two times more doctorate degrees than did U.S. minorities (5,593 versus 2,890).

Source: National Research Council, "Doctorate Recipients from United States Universities," 1977 and 1987 Summary Reports.

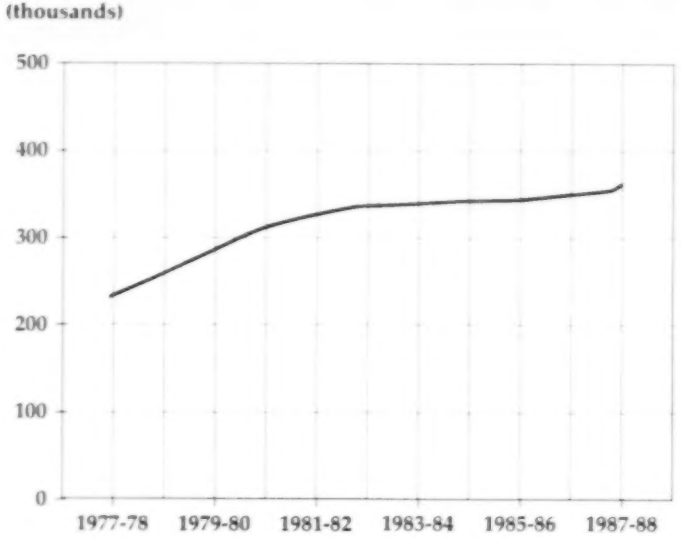
Citizenship of Doctorate Recipients by Field, 1987



Foreign Student Enrollment Increases

- In academic year 1987–88, 356,187 foreign students were enrolled in U.S. colleges and universities, representing 3 percent of total U.S. enrollment. In the last five years, foreign student enrollment has increased 6 percent.
- Almost seven out of 10 foreign students studying in the U.S. were males (68 percent).
- In 1987–88, half of foreign students were undergraduates, 44 percent studied at the graduate level, and 6 percent were engaged in other studies (e.g., intensive English language courses).
- Slightly more than half (51 percent) of foreign students were from Asia, particularly Taiwan, Malaysia, China, India, and Korea. Twelve percent of foreign students were from the Middle East, and 13 percent were from Latin America.
- In 1987–88 the largest share of foreign students (21 percent) studied engineering, followed by business and management (19 percent).
- Most foreign students studied at four-year institutions (87 percent); 13 percent attended two-year colleges.
- More than 6 out of 10 foreign students studied at public institutions (66 percent), while 34 percent studied at independent colleges and universities.

Foreign Students Enrolled in U.S. Institutions



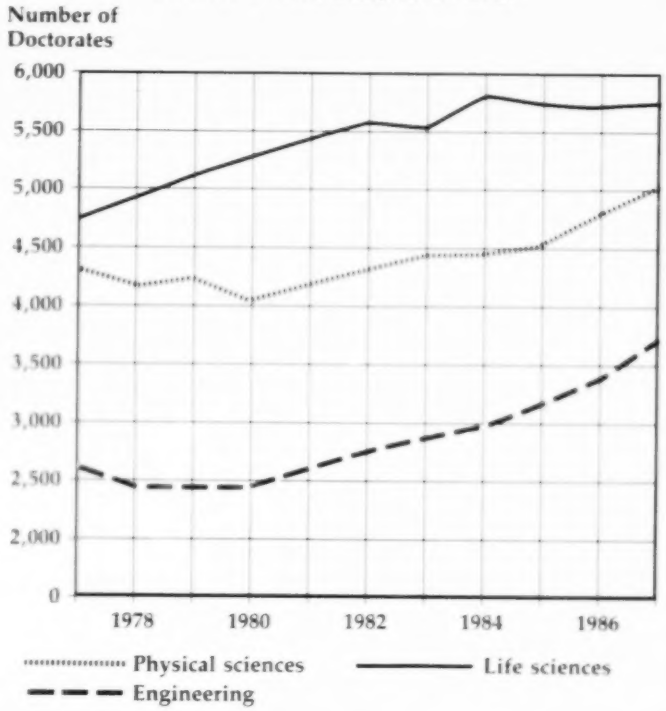
Source: Institute for International Education, "Open Doors: 1987–88, Report on International Education Exchange."

Nearly Half of 1987 Doctorates Awarded in Sciences

- In 1987, U.S. colleges and universities awarded 32,278 doctorates; 45 percent (14,485) were in the sciences.
- Of all science Ph.D.s awarded that year, 5,742 were in the life sciences; 5,027 were in the physical sciences; and 3,716 were in engineering.
- Men earned 79 percent of the Ph.D.s in the sciences, while women earned 21 percent.
- Overall, degrees in the sciences increased 16 percent between 1982 and 1987, from 12,497 to 14,485. However, there were differences by field. In the physical sciences, the number of doctorates in the earth, atmospheric and marine sciences declined by 5 percent. Doctorates in chemistry increased 18 percent.
- Almost two-thirds of the degrees awarded in the physical sciences (64 percent) were in the areas of chemistry, physics, and astronomy.
- In 1987, more than half of all engineering degrees were awarded to non-U.S. citizens (51 percent), compared to 42 percent ten years earlier. Twenty-nine percent of Ph.D.s in the physical sciences were awarded to foreign citizens, as were 21 percent in the life sciences.

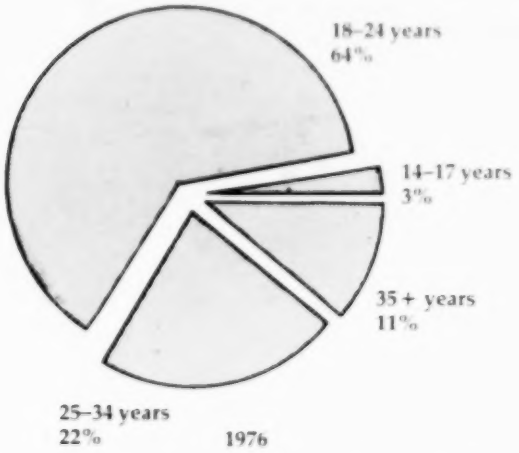
Source: National Research Council, *Summary Report, Doctorate Recipients from United States Universities*, selected years.

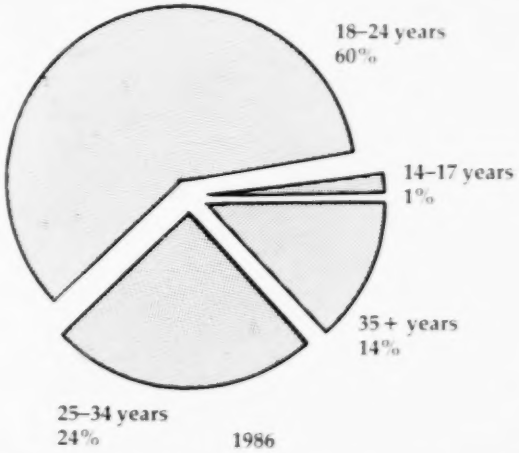
Science Doctorates, 1977–1987



Percent of Older College Students Is Increasing

- In October 1986, more than 12.4 million persons were enrolled in college. This represents a substantial increase over the 9.9 million enrolled in 1976.
- More than 4.7 million persons aged 25 and older were attending college in 1986. Adults 25 and older now account for more than 38 percent of all college students.
- Nearly 1.8 million of today's college students are 35 years old or older.
- This 35-and-older group is one of the fastest growing components of college enrollments, having more than doubled since 1973, an increase of 1.0 million persons. Women make up two-thirds of this 35-and-older group.





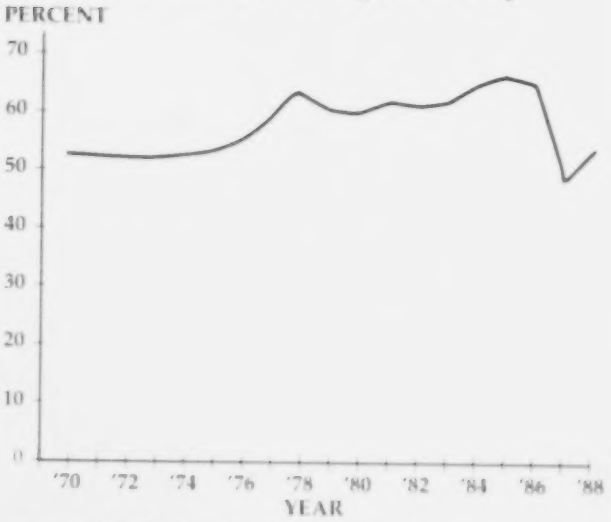
Source: U.S. Bureau of the Census, Current Population Reports, Series P-20, No. 429, *School Enrollment—Social and Economic Characteristics of Students: October 1986*, (table 4). Washington, DC: U.S. Government Printing Office, 1988.

Entering Students Send More Applications

Higher percentages of first-time, full-time freshmen are applying to more than one college or university today compared to 20 years ago.

- In 1988, more than half of entering freshmen applied to more than one college or university (54 percent). In 1968, 50 percent of freshmen applied to more than one institution.
- Male freshmen were somewhat more likely to apply to more than one college than their female counterparts. In 1988, 56 percent of males applied to more than one college compared to 51 percent of females.
- The proportion of freshmen applying to three or more colleges reached an all-time high of 37 percent in 1988. Twenty years ago only 15 percent did so.
- In 1988, 68 percent of freshmen at independent universities sent applications to three or more institutions, while 56 percent did so at four-year independent colleges.
- Thirty-six percent of freshmen at state colleges applied to three or more institutions in 1988.
- Although freshmen are applying to more colleges, fewer students are enrolling in their first-choice institution. In 1988, 68 percent of freshmen were attending their first-choice college, compared to 70 percent in 1987 and 76 percent in 1978.

Full-Time Freshmen Applying to More Than One College/University



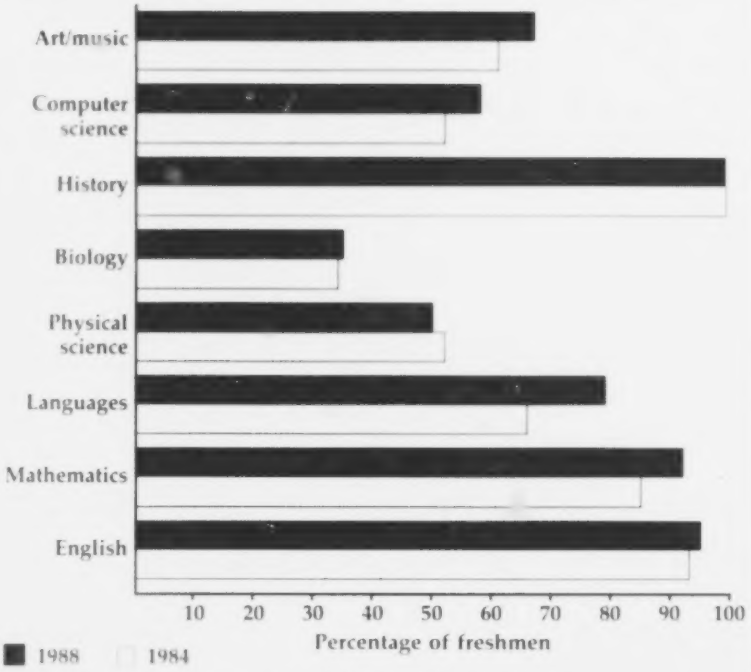
Source: *The American Freshman: National Norms for Fall 1988* ($17.00 prepaid). Available from the Higher Education Research Institute, UCLA Graduate School of Education, 405 Hilgard Ave., Los Angeles, CA 90024.

Most Freshmen Report Adequate Preparation for College

Most first-time, full-time freshmen in 1988 completed recommended years of high school study in basic academic areas, except for biological science. The percentage of prepared students varied from one subject to another.

- At least 95 percent of freshmen met or exceeded the recommended years of study in English (4 years), mathematics (3 years), and history/American government (1 year).
- Seventy-nine percent of freshmen completed the recommended levels of study in foreign languages (2 years).
- More than half of freshmen said they completed recommended levels of study in art or music (1 year), computer science (½ year), and physical science (2 years).
- More than one-third of freshmen (35 percent) said they completed the recommended number of years in biological science (2 years).
- Since 1984, student levels of preparation were stable in most areas. The greatest increases were in foreign languages and in computer science.

Academic Preparation of College Freshmen: 1984 and 1988

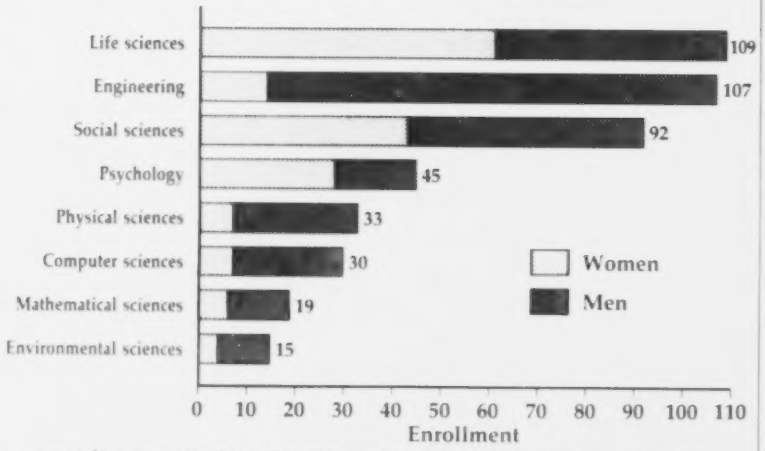


Source: Alexander W. Astin and others, "The American Freshman: National Norms for Fall 1988."

Graduate Enrollment in Science and Engineering Rises

- In 1987, 449,585 students were enrolled in our nation's graduate science and engineering programs. This represents a 12 percent increase over 1982.
- These students included 356,477 U.S. citizens and 93,108 foreign students. In the last year, enrollment of U.S. citizens in graduate engineering and science programs was stable; enrollment of foreign students increased 5 percent.
- Life sciences and engineering each enroll about one-quarter of all graduate science and engineering students.
- Women account for nearly 38 percent of those enrolled. In 1987, 170,082 women were enrolled in graduate science and engineering programs.
- Since 1980, the number of men enrolled in graduate science and engineering programs has increased by 12 percent. The number of women enrolled has increased 27 percent.

Graduate Student Enrollment in Science and Engineering, 1987 (in thousands)



Source: National Science Foundation, Division of Science Resources Studies, September 1988, *Selected Data on Graduate Science/Engineering Students and Postdoctorates: Fall 1987.*

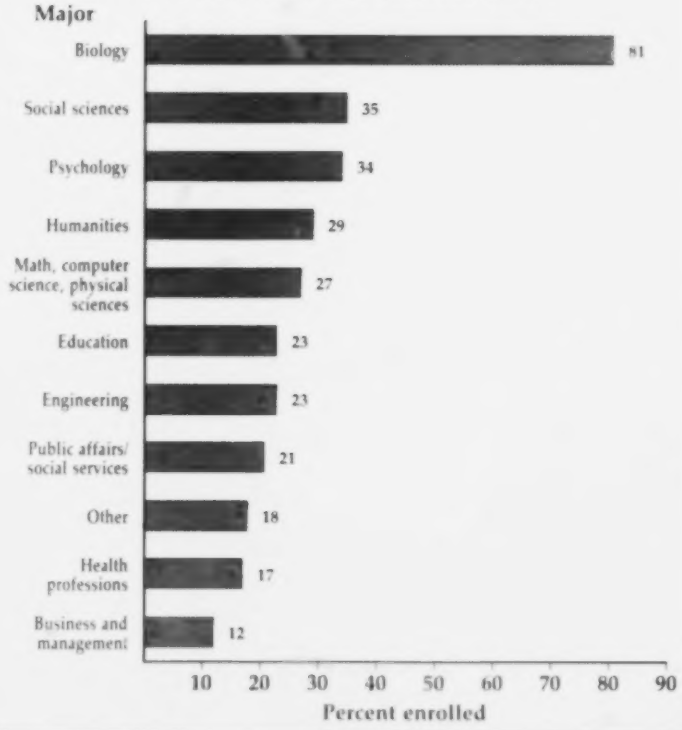
One-Quarter of Recent Graduates Are Enrolled in School

The following findings from the 1985 Recent College Graduates survey are based on a nationally representative sample of 16,000 baccalaureate degree recipients from 404 colleges and universities.

- About one-quarter of the 1983–84 baccalaureate degree recipients were enrolled in school one year after completing their degree.
- Compared with all 1983–84 baccalaureate recipients, graduates in biology, psychology, and the social sciences were more likely to be enrolled, while graduates in business and the health professions were less likely to be enrolled.
- About 86 percent of the nation's 1983–84 baccalaureate degree recipients were employed one year after graduation: about 74 percent were employed full-time and 12 percent were employed part-time. About 3 percent reported that they were unemployed.
- Of those who were employed, eight in ten were working in a job related to their major. The average salary of full-time employed graduates was $18,300.
- Of those who were unemployed, about six in ten were enrolled in school.

Source: U.S. Department of Education, Center for Education Statistics, "Occupational and Educational Consequences of a Baccalaureate Degree," March 1987. Available from the U.S. Government Printing Office (Order #065-000-00298-1)

Baccalaureate Recipients Enrolled in School One Year After Graduation, 1985



Bachelor's Degree Attainment Among 1980 High School Seniors

Among 1980 high school seniors, 21 percent of the white students, compared to 10 percent of the black students and 7 percent of the Hispanic students, earned a bachelor's or higher degree by spring 1986.

- Among 1980 high school seniors who were enrolled full-time at an independent four-year institution in October 1980:
  - 59 percent of whites,
  - 29 percent of blacks, and
  - 28 percent of Hispanics

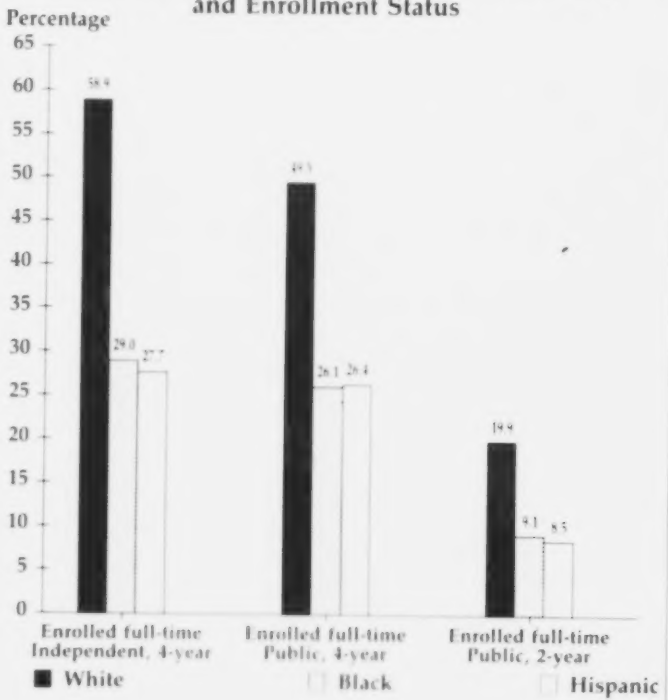
  earned a bachelor's or higher degree by spring 1986.
- Among 1980 high school seniors who were enrolled full-time at a public four-year institution in October 1980:
  - 50 percent of whites,
  - 26 percent of blacks, and
  - 26 percent of Hispanics

  earned a bachelor's or higher degree by spring 1986.
- Among 1980 high school seniors who were enrolled full-time at a public two-year institution in October 1980:
  - 20 percent of whites,
  - 9 percent of blacks, and
  - 9 percent of Hispanics

  earned a bachelor's or higher degree by spring 1986.

Source: U.S. Department of Education, Center for Education Statistics, Longitudinal Studies Branch, "Highest Degree Attained by 1980 High School Seniors by Sex, Race, Type of Community, and Type of High School, as of Spring 1986," September 20, 1987.

1980 High School Seniors Who Earned a Bachelor's or Higher Degree, by Race/Ethnicity and Enrollment Status

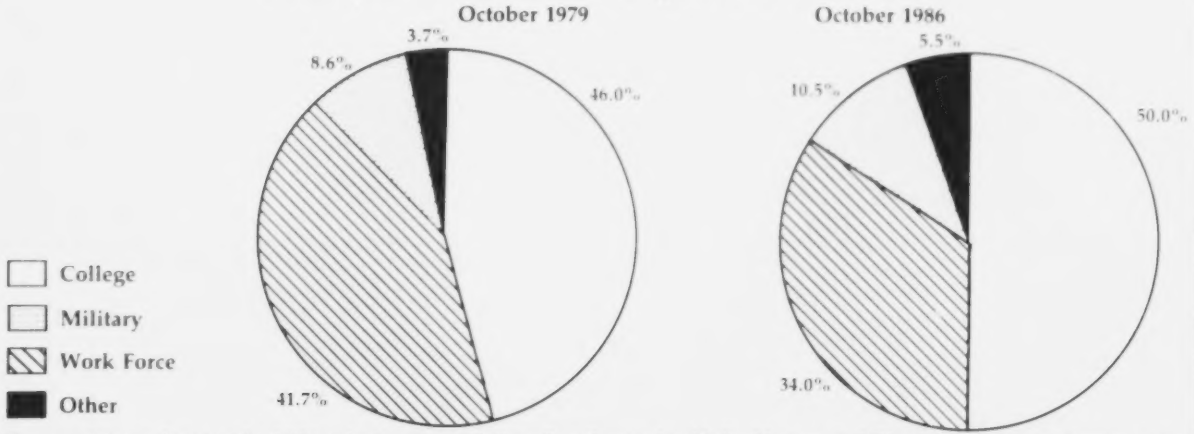


Military and Colleges Draw Larger Share of Male High School Grads

As the pool of male high school graduates shrank between 1979 and 1986, higher education and the military services attracted a larger share of these graduates.

- In 1986, the military recruited about 10 percent of all recent male high school graduates, compared with 8 percent in 1979. Between now and 1992, the military's share will remain roughly constant.
- Higher education's share of all recent male graduates rose from 46 percent to 50 percent between 1979 and 1986.
- The proportion of all recent male high school graduates entering the labor force has diminished from 42 percent to 34 percent.
- In contrast, among blacks, both the military and higher education attracted a **smaller** share in 1986 than in 1979. The proportion of black male graduates entering the military dropped from 21 percent to 14 percent. Blacks are still more likely than whites to enlist for military duty after high school.

Destinations of Recent Male High School Graduates



Source: *Joining Forces: The Military's Impact on College Enrollments* by Holly Hexter and Elaine El-Khawas. Copies are available for $5 (prepaid) for ACE members and $8 for nonmembers from the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036.

FINANCIAL AID

Loans Make Up Half of Student Aid

■ In 1987–88, half of all student aid awarded was in the form of loans, continuing a trend of increasing borrowing by needy students. Five years ago, loans made up 44 percent of all aid.

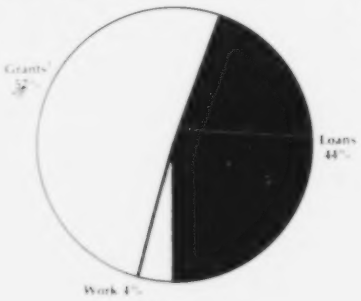
■ The Supplemental Loans For Students (SLS) program has grown tremendously in the last year: the number of recipients more than tripled, from 169,000 in 1987 to 611,000 in 1988.

■ An increasing proportion of Pell grants is going to students in proprietary schools. Between 1980–81 and 1986–87, the percentage of Pell grants to such students more than doubled, from 12 percent to 25 percent.

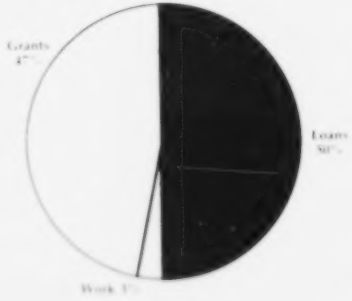
■ An estimated $24.5 billion was awarded to students for financial aid in academic year 1987–88. This amount included the following:

—$3.7 billion in Pell grants;
—$11.3 billion in loans awarded under the Stafford Student Loan program (formerly the Guaranteed Student Loan program), Parent Loans for Undergraduate Students (PLUS), and the SLS program;
—$3.4 billion in federal campus-based aid and other federal programs;
—$1.5 billion in state grants; and
—$4.6 billion in institutional aid.

Sources of Aid



1982–83



1987–88[2]

[1]The category "grants" includes Pell Grants, Supplemental Educational Opportunity Grants, State Student Incentive Grants, Social Security, veterans benefits, state grant programs, institutionally awarded aid, and other grants.

[2]Estimated

Source: "Trends in Student Aid: 1980 to 1988," by the Washington Office of the College Board, copyright 1988 by the College Entrance Examination Board, New York. Copies of this report may be ordered for $6 each from College Board Publications Department M05, Box 886, New York, NY 10101-0886.

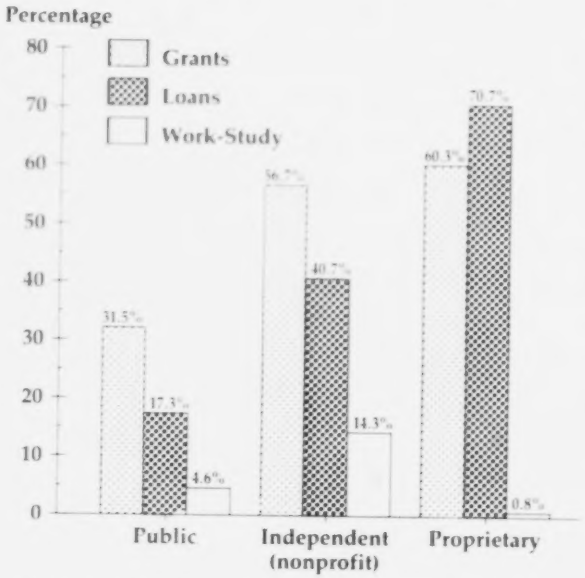
New Student Financial Aid Study Released

The U.S. Department of Education recently released the first in a series of reports based on the department's 1987 National Postsecondary Student Aid Study. Among the findings are the following:

- About 38 percent of the 8.6 million undergraduates enrolled at public colleges and universities in the fall of 1986 received financial aid for the 1986–87 school year.
  - 32 percent received grants,
  - 17 percent received loans, and
  - 5 percent participated in college work-study.
- About 65 percent of the 2 million undergraduates enrolled at independent, nonprofit colleges and universities in the fall of 1986 received financial aid for the 1986–87 school year.
  - 57 percent received grants,
  - 41 percent received loans, and
  - 14 percent participated in college work-study.
- About 84 percent of the 602,000 undergraduates enrolled at proprietary institutions in the fall of 1986 received financial aid for the 1986–87 school year.
  - 60 percent received grants,
  - 71 percent received loans, and
  - 1 percent participated in college work-study.

Some students received financial aid from several sources.

Undergraduates Enrolled in Fall 1986 Who Received Financial Aid



Source: U.S. Department of Education, National Center for Education Statistics, "Undergraduate Financing of Postsecondary Education: A Report of the 1987 National Postsecondary Student Aid Study" (Washington, DC: Government Printing Office).

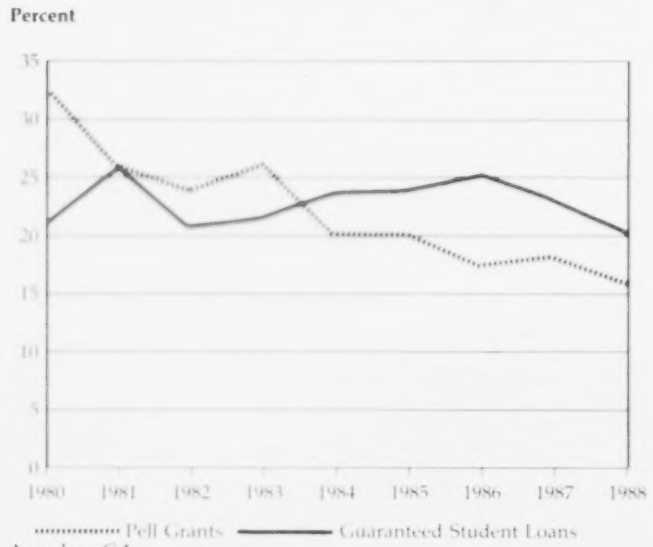
Fewer Freshmen Receive Pell Grants

The latest survey of first-time full-time freshmen done by the University of California, Los Angeles, and sponsored by the American Council on Education (ACE), documents that the percentage of freshmen receiving Pell Grants has declined considerably since 1980.

- In fall 1980, 32 percent of entering freshmen received Pell Grants; by fall 1988, 16 percent of freshmen received these grants.
  - —In 1988, only 3 percent of freshmen received Pell grants of $1,500 or more.
- In contrast, student reliance on Guaranteed Student Loans (GSLs) has risen during the same period. Twenty percent of entering freshmen were receiving GSLs in 1988 compared to 10 percent who did so in 1978.
- The number of students receiving institutional grants has increased in the last year, from 13 percent in 1987 to 20 percent in 1988.

Source: "The American Freshman: National Norms for Fall 1988," Higher Education Research Institute, UCLA Graduate School of Education, Los Angeles, CA.

Freshmen Receiving Student Aid, 1980–1988



College Debts of Recent Graduates Continue To Rise

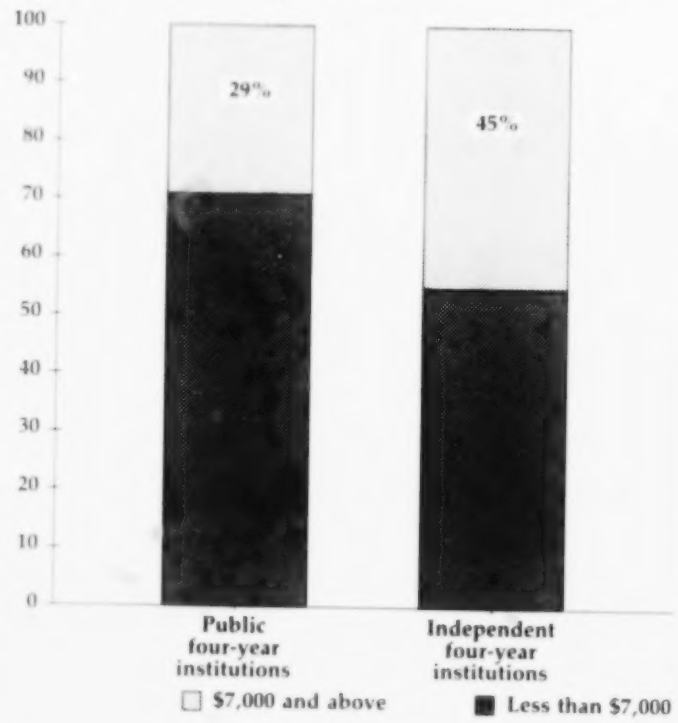
Over 410,000 1983–84 graduates of four-year institutions completed college with education debts. These graduates represent 43 percent of all graduates of four-year institutions.

Among 1984 graduates who borrowed:

- the average college debt was about $5,500, twice the average of 1977 graduates ($2,700);
- one in three owed less than $3,000, 34 percent owed $7,000 or more, and 2 percent owed $15,000 or more;
- 29 percent of the graduates of four-year public institutions owed $7,000 or more, compared to 45 percent of the graduates of independent institutions;
- one-third of those who were employed full-time after graduation were paying 6 percent or more of their earnings toward their education loans;
- one in seven recent graduates in education and in the humanities who borrowed faced a loan burden of 10 percent or more of their pre-tax earnings.

Source: Cathy Henderson, "College Debts of Recent Graduates," December, 1987. For copies, send a check payable to the American Council on Education to: Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington DC 20036 (prepaid; $5 for ACE members, $8 for nonmembers).

Percent of 1983–84 Graduates Who Borrowed, By Debt Level

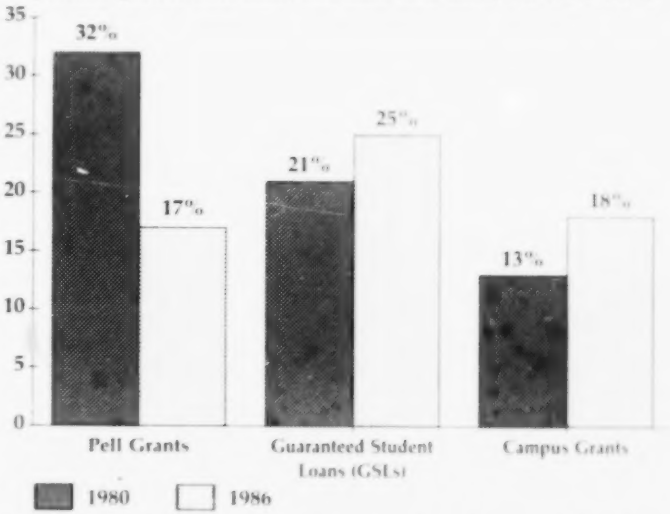


Institutional Student Aid on the Rise

- Colleges and universities are funding a growing share of student financial aid. Between 1984 and 1986, institutional aid (i.e., campus grants and scholarships) for entering freshmen at all four-year institutions increased by more than one-fifth (22 percent).
- This increase in institutional aid is nearly double the increase in tuition and fees and almost four times greater than the inflation factor for the same period. Between 1984 and 1986, tuition and fees increased about 14 percent, while inflation was 6 percent.
- Dramatic shifts have occurred in the way students pay for college. From 1980 to 1986, the share of first-time, full-time freshmen participating in the Pell Grant program declined by almost one-half, from 32 percent to 17 percent.
- Between 1980 and 1986, the share of first-time, full-time freshmen receiving campus grants increased from 13 percent to 18 percent.

Freshman Participation in Student Aid Programs

(percentages for first-time, full-time freshmen, 1980 and 1986)



Source: Kenneth C. Green, "The Rising Institutional Costs of Student Aid," *Educational Record*, Summer/Fall 1988. Data is from the Cooperative Institutional Research Program (CIRP) Freshman Survey, Higher Education Research Institute, University of California, Los Angeles.

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